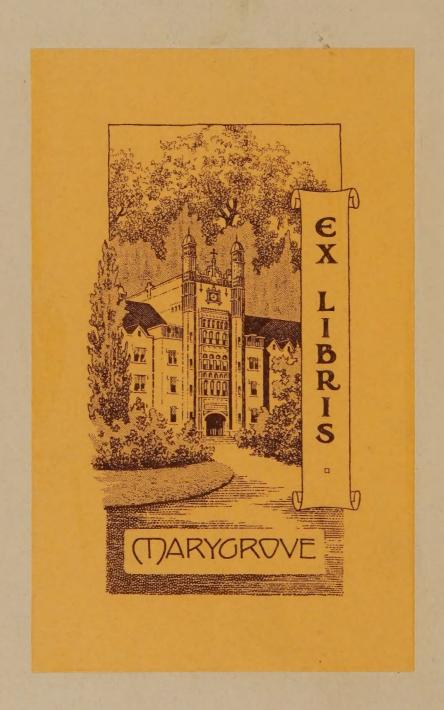
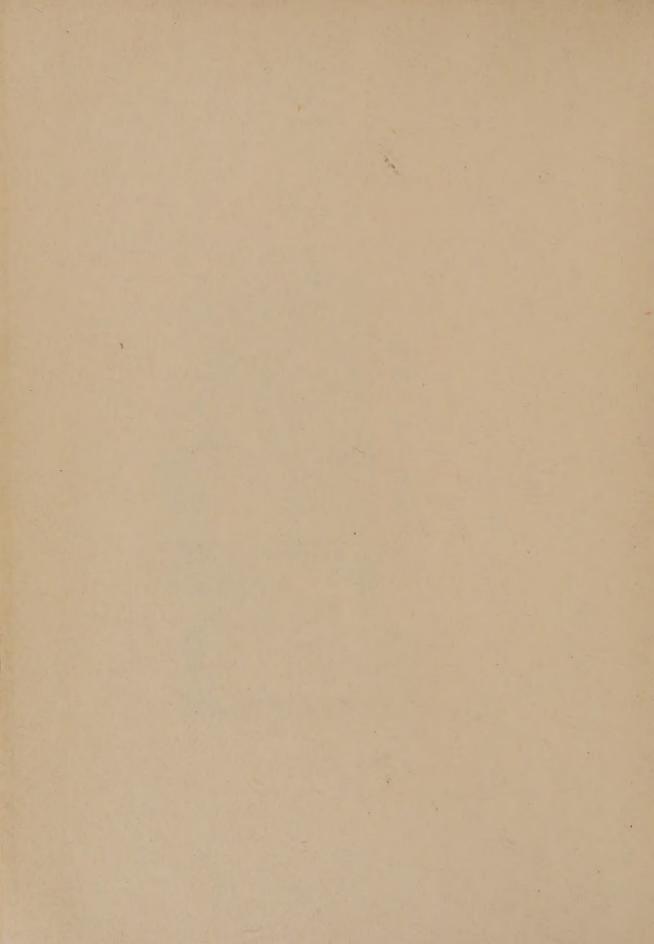
# U.S. CATHOLIC HISTORICAL SOCIETY

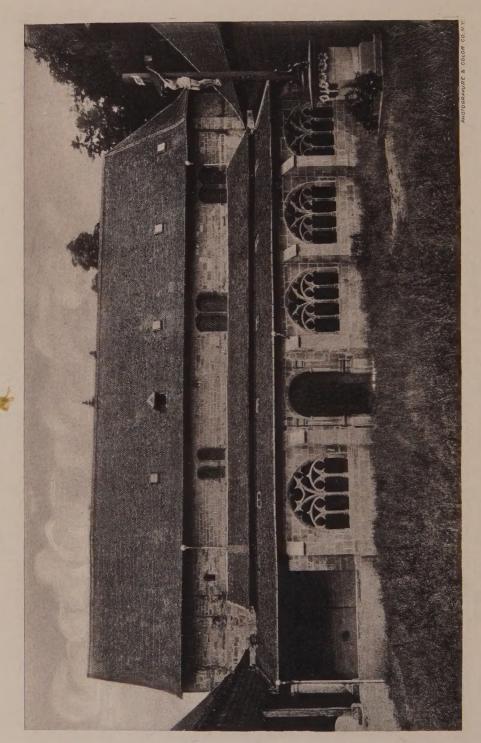
WALDSEEMÜLLER'S COSMOGRAPHIAE INTRODUCTIO



U32







"THE SOUTH FRONT AND CLOISTER OF THE CATHEDRAL OF ST. DIE" "WHERE WALDSEEMÜLLER'S BOOK WAS PRINTED."

# UNITED STATES CATHOLIC HISTORICAL SOCIETY MONOGRAPH IV

# THE COSMOGRAPHIÆ INTRODUCTIO

OF

# MARTIN WALDSEEMÜLLER IN FACSIMILE

Followed by the Four Voyages of Amerigo Vespucci, with their Translation into English;

to which are added

Waldseemüller's Two World Maps of 1507 With an Introduction

BY

PROF. JOSEPH FISCHER, S.J., AND PROF. FRANZ VON WIESER

PROF. CHARLES GEORGE HERBERMANN, Ph.D.

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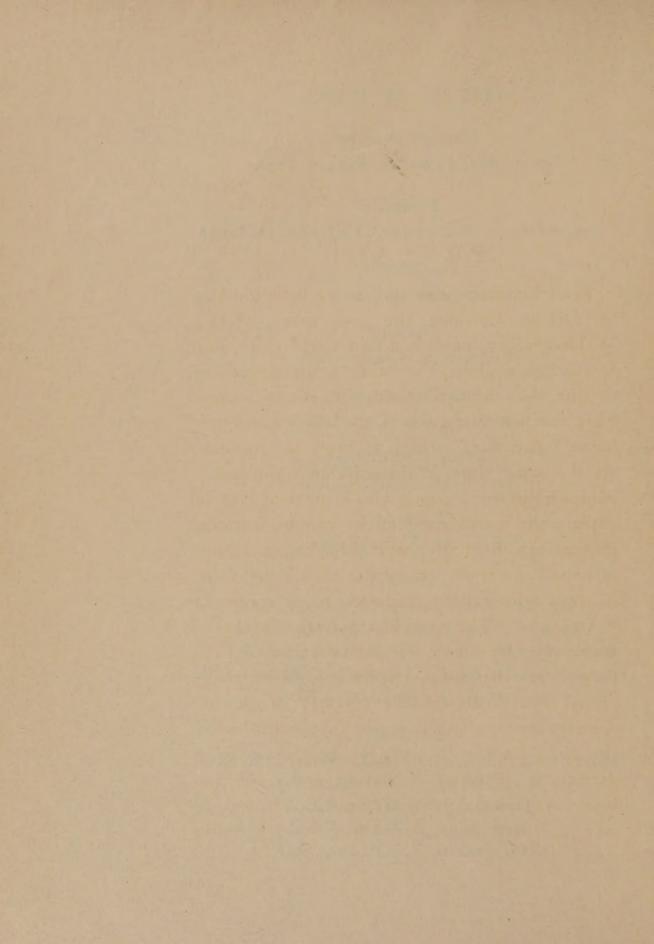
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### PREFACE

Four hundred years ago, in the little town of St. Dié in Lorraine, the geographer, Martin Waldseemüller, published two world maps, one for use as a globe, the other a flat projection of the then known world. These two maps were the first that gave to the new world the name "America," which it bears to this day. At the same time, Waldseemüller published a pamphlet of forty pages whose purpose was to explain the world map and its various features, its bearings on geographical sides, and its record of new discoveries. Here the author set forth his reason for calling the newly found continent "America." The pamphlet bore the title, Cosmographiæ Introductio or Introduction to Cosmography. By cosmography was meant geography, but Waldseemüller's little work has special reference to the world map published at the same time. As part of the Cosmographiæ Introductio appeared a Latin version of the four voyages of Amerigo Vespucci. It was to serve as a justification for calling the new world "America."

# Preface

The United States Catholic Historical Society, desirous of commemorating the four-hundredth anniversary of this notable event, publishes herewith a little memorial volume consisting:

FIRST. Of an excellent facsimile reprint of the 1507 edition of the Cosmographiæ Introductio, which is one of the treasures of the University Library of Strasburg. This also includes the four voyages of Amerigo Vespucci, translated into Latin by Jean Basin of Sendacour. This copy belonged in 1510 to the celebrated humanist Beatus Rhenanus of Schlettstadt as appears from his name at the foot of the title-page.

SECOND. Of the translation of these two documents into English; the Cosmographiæ Introductio being translated by Prof. Edward Burke and the Four Voyages of Amerigo Vespucci by Dr. Mario E. Cosenza;

THIRD. Of an excellent reduced facsimile of Waldseemüller's map, 14x26 inches (the original is 8 feet long and 4½ feet high), from the only remaining copy of the map found in 1901 by Professor Joseph Fischer, S.J., at the castle of Wolfegg in Würtemberg;

FOURTH. Of a facsimile copy of the Wald-seemüller globe, now in the Hauslab-Liechten-stein collection at Vienna which was identified by Gallois;

FIFTH. Of an introduction discussing the

### Preface

various problems raised by Waldseemüller's publications by Prof. Joseph Fischer, S.J., the discoverer of the Waldseemüller map, and Prof. F. von Wieser of the University of Innsbruck, whose authoritative scholarship on all questions touching Martin Waldseemüller is recognized everywhere.

It is needless to say a word on the appropriateness of this publication at the present time. Besides its sentimental value, the publication will offer the reader a copy of the oldest map cut in wood, and probably of the oldest wall map ever published. The map will exhibit a picture of the world such as it was known four hundred years ago and, we may add, substantially such as it was known to Columbus himself, while the facsimile of the pamphlet will present us with a piece of early Strasburg black letter.

The Editor desires to express his warm recognition of the courtesies of Professors Fischer, S.J., and von Wieser in preparing their authoritative exposition of the history and significance of the Cosmographiæ Introductio and the accompanying documents. He also returns his sincere thanks to Dr. Leigh Harrison Hunt, Professors William Fox, August Rupp, and Dr. J. Vincent Crowne of the College of the City of New York for valuable assistance given in the preparation of this work.



# INTRODUCTION

By Prof. JOS. FISCHER, S.J., and Prof. FR. v. WIESER, Ph.D.

Four hundred years ago, on the 25th of April, 1507, there appeared in a little out-of-the-way Vosges village, St. Dié, in Lorraine, a little book destined to attain great historical importance—a book which later became of the utmost interest, particularly for America. The title of the book is as follows:

COSMOGRAPHIÆ INTRODVCTIO, CVM QVIBVSDAM GEOMETRIÆ AC ASTRONOMIÆ PRINCIPIIS AD EAM REM NECESSARIIS.

Insuper quatuor Americi Vespucii Navigationes.

Universalis Cosmographiæ descriptio tam in solido quam plano, eis etiam insertis, quæ Ptholomæo ignota a nuperis reperta sunt.

As appears from the title, this book consists of two distinct parts: a geographical introduction (Cosmographiæ Introductio), and an account of the four voyages of Amerigo Vespucci (Quatuor Americi Vespucii Navigationes). Moreover,

we see that two maps belong to the book—a globe and a plane projection, on which, in addition to what was already known to Ptolemy, all newly discovered lands are laid down.

This work in its four parts was destined to satisfy, in great measure, the lively interest evinced by all classes of that day in geographical research, and particularly in the marvelous accounts of the discoveries recently made by the Spanish and Portuguese.

The publication met with instant success, and in a few months several editions of the text were issued. The map, as Waldseemüller himself informs us in a later publication, attained in a short time a circulation of not less than a thousand copies.

So it came about that a proposal made in the text and carried out in the two maps, viz., that the newly discovered continent be called AMERICA, was at once generally adopted and prevailed despite later opposition.

On the four-hundredth anniversary of the christening of America, it seems right and proper to render more generally accessible in facsimile the four parts of the publication to which the New World owes its name.

The parts of the original publication of 1507 at present are scattered; they are bibliographical curiosities and accessible only to the select few.

Of the Cosmographiæ Introductio, printed at St. Dié, in 1507, omitting mention of later reprints, we have two chief editions: one of the 25th of April, 1507 (vii Kal. Maii), and the other of the 29th of August, 1507 (iiii Kal. Sept.). Of each of these editions there are two variants. In one Martinus Ilacomilus (the Græcized form of the name of Waldseemüller), and in the other the Gymnasium Vosagense are named as the editors. These variations appear in the dedication of the work to the Emperor Maximilian I:

- 1. Divo Maximiliano Cæsari Augusto Martinus Ilacomilus fælicitatem optat.
- 2. Divo Maximiliano Cæsari semper Augusto Gynnasium (!) Vosagense non rudibus indoctisve artium humanitatis commentatoribus nunc exultans gloriam cun (!) fælici desiderat principatu.

The Gymnasium Vosagense was composed of

<sup>&</sup>lt;sup>1</sup> The Strasburg edition appeared in 1509, the undated Lyons edition about 1518.

<sup>&</sup>lt;sup>2</sup> Detailed statements regarding the differences in the two editions and their readings may be found in the following: [M. D'Avezac], Martin Hylacomylus Waltzemüller, ses ouvrages et ses collaborateurs, Paris, 1867; H. Harrisse, Bibliotheca Americana Vetustissima, New York, 1866, and Additions, Paris, 1872; Ed. Meaume, Recherches critiques et bibliographiques sur Améric Vespuce et ses Voyages (Mémoires Soc. d'Archéologie Lorraine, 3<sup>e</sup> serie, t. xvi, Nancy, 1888; J. Boyd-Thacher, The Continent of America, Its Discovery and Its Baptism, New York, 1896; F. v. Wieser in his introduction to the facsimile edition of the Cosmographiæ Introductio in the collection, Drucke und Holzschnitte des XV. und XVI. Jahrhunderts in getreuer Nachbildung, Strasburg, T. H. Ed. Heitz, 1907.

a small group of humanists1 which Canon Walter Ludd, secretary to Duke René II of Lorraine, had gathered about him, and which published his works in the printing-house erected there by Ludd himself.' Besides Walter Ludd, this literary circle counted among its most prominent members Nicholas Ludd, the nephew of Walter, Joh. Basinus Sendacurius, Philesius Ringmann, and Martin Waldseemüller. The last two, it is true, entered the service of the two Ludds<sup>3</sup> only as paid printers; but there can be no doubt that Waldseemüller and Ringmann were the most learned members of the Gymnasium Vosagense—those of the greatest literary attainments. The question now arises how to explain the discrepant statements of the two editions, the one of which ascribes to the Gymnasium Vosagense, the other to Waldseemülleralone, the editorship of the Cosmographiæ Introductio.

<sup>&</sup>lt;sup>1</sup> The word Gymnasium should not here be interpreted as an educational institution. As to the various significations of the Gymnasium Vosagense see A. v. Humboldt, Kritische Untersuchungen, Berlin, 1852, ii, 363; D'Avezac, l.c.,p.11 sq.; C. Schmidt, Histoire littéraire de l'Alsace, Paris, 1879, ii, 111; L. Gallois, Le Gymnase Vosgien (Bulletin de la Société de géographie de l'Est 1900, p. 88 sqq.).

<sup>&</sup>lt;sup>2</sup> " Officina mea literaria;" by these words Ludd designates this printing-house in his letter of dedication which prefaces Philesius Ringmann's Grammatica Figurata, also printed at St. Dié.

<sup>&</sup>quot;" Domini mei" the two Ludds are called by Waldseemüller in his letter to Amerbach, dated the 5th of April, 1507, published by C. Schmidt in his essay, Mathias Ringmann Philesius (Mémoires de la Soc. d'Archéologie Lorraine, 3° serie, t. iii, Nancy, 1873, p. 227), and reproduced by Harrisse in The Discovery of North America, Paris, London, 1892, p. 441.

We know that Walter Ludd, the head of the Gymnasium Vosagense, had not only established, as previously mentioned, a printing office at St. Dié and was an author, but had also furnished the money for the publications produced by other members of the Gymnasium, and that in the present case he had moreover procured the necessary scientific material.<sup>1</sup>

As literary collaborators in the Cosmographiæ Introductio are to be mentioned Philesius Ringmann and Joh. Basinus Sendacurius. The former contributed two poems—a shorter dedicated to Emperor Maximilian I, and a longer intended for the reader. The latter furnished the Latin version of the four voyages of Amerigo Vespucci, and as a preface a decastich and a distich ad lectorem.

There can be no doubt, however, that Martinus Waldseemüller (Ilacomilus) must be recognized as the real publisher of the entire work; for not only did the treatise on cosmography originate from his pen, but the two maps going with the work were designed by him. Both parties, therefore, in a way had the right to pose as authors of the work. In view, however, of the fact that Martin Waldseemüller undertook the principal task, and that the work represents in all its scientifically significant parts

<sup>&</sup>lt;sup>1</sup> See D'Avezac, l.c., p. 65.

his intellectual property, we consider it a point of honor to connect his name forever with the publication of the Cosmographiæ Introductio.

For this reason, also, we have chosen the reading of the edition of the 25th of April, 1507, containing his name and which must typographically be regarded as the editio princeps, for reproduction in our facsimile edition.

Martin Waldseemüller¹ was born between 1470–1475, probably at Radolfszell on Lake Constance. It is established by documentary evidence that his father had lived in Freiburg since 1480, at least, and that in 1490 he became a citizen of that city.² On December 7th of the same year, Martin was matriculated in the University of Freiburg: "Martinus Waltzenmüller de Freiburgo, Constantiensis diæcesis, septima decembris."³

It is clear that he studied theology, for later, in a memorial to Duke René of Lorraine, he calls himself "clerc du diocèse de Costance." He

<sup>2</sup> See P. Albert—Uber die Herkunft Martin Walzenmüller's, genannt Hylacomylus. (Zeitschrift für die Geschichte des Oberrheins,

N. F., xv, Karlsruhe, 1900, p. 510 sqq.)

<sup>&</sup>lt;sup>1</sup> He himself spells his German name, Waldseemüller, not Waltzenmüller; and its Græcized form adopted according to the humanists of the day, Ilacomilus, not Hylacomilus.

<sup>&</sup>lt;sup>3</sup> It was Alex. v. Humboldt (l.c., ii, 362) who first drew attention to this entry in the University of Freiburg, thereby proving that the author Hylacomilus, known from his earlier works, was identical with this Waltzenmüller. See the lately published book: *Die Matrikel der Universität Freiburg i. Br. 1460–1656*, by Prof. Dr. H. Mayer, Freiburg, 1907.

was therefore a clergyman in his native diocese of Constance. Subsequently, he became Canon at St. Dié, which position he occupied until his death, about 1522. Probably Waldseemüller, as far back as 1505, was engaged at Strasburg, jointly with Philesius Ringmann, in the study of the geography and the maps of Ptolemy.' It is likely that before 1507 he also spent some time in Basel and collated in its libraries manuscripts for the proposed edition of Ptolemy. While there he became a friend of the printer Amerbach.3 In 1507 we find both Waldseemüller and Ringmann in the printing establishment of Walter There Waldseemüller dis-Ludd at St. Dié. played his many-sided activity. He was employed as a printer—in his letter to the Duke René, previously mentioned, he styles himself "imprimeur"—and together with other members of the Gymnasium Vosagense he prepared a new edition of Ptolemy. At the same time, he worked on various portions of the important work now engaging our attention.

We shall now proceed to examine more closely the several portions of the Waldseemüller publications of 1507.

<sup>1</sup> See Gallois, Bulletin, l.c., 221 sqq.

<sup>3</sup> See Waldseemüller's letter to Amerbach, cited above, dated

April 5, 1507.

<sup>&</sup>lt;sup>2</sup> See Ringmann's letter from Strasburg, dated August 1, 1505, in his edition, relative to the third expedition of Amerigo Vespucci, *De ora Antarctica*, Argentinæ 1505.

### THE OUTLINES OF COSMOGRAPHY

Cosmographiæ Introductio

IN THE nine chapters of his Cosmographiæ Introductio, Waldseemüller treats the chief teachings of cosmography essentially according to traditional views.

In the introduction he discusses the principal theorems of geometry as far as they are needed for the understanding of geography; and he then proceeds minutely to define the globe, its circles, axes, zones, etc., its climata, its winds, its general divisions, the seas and islands, and the various distances on the surface of the globe.

Thrice in the text of the original (pp. 18, 25, and 30 of the facsimile edition), and on the inside of the double sheet whereon is the Figura universalis (facing p. 28 of facsimile edition), Waldseemüller makes mention of the new territories as described in Amerigo Vespucci's Quatuor Navigationes, and which he calls the fourth continent—quarta orbis pars. Twice he proposes to christen this newly found part of the globe AMERICA in honor of its supposed discoverer. By America, of course, he meant the South American continent of to-day.

# Outlines of Cosmography

The original words of the two passages above referred to run thus:

- 1. (p. 25) "Quarta orbis pars (quam quia Americus invenit, Amerigen quasi Americi terram sive Americam nuncupare licet)."
- 2. (p. 30) "Quarta pars per Americum Vesputium (ut in sequentibus audietur) inventa est, quam non video, cur quis jure vetet, ab Americo inventore sagacis ingenii viro Amerigen quasi Americi terram sive Americam dicendam, cum et Europa et Asia a mulieribus sua sortita sint nomina."

Waldseemüller himself carried out this proposal in his publication of 1507, when he inscribed on both maps belonging to the Cosmographiæ Introductio the word America as the name of the newly discovered continent. Both maps are stated to belong to the work not only on the title-page of the book, but also in several passages of the text; in fact, Waldseemüller declares outright that the outlines of geography, called "Cosmographiæ Introductio," was but an explanatory text for his large map of the world,—"Generale nostrum, pro cuius intelligentia hæc scribimus."

<sup>&</sup>lt;sup>1</sup> See p. 23 of this facsimile edition. The expression "generale" is also used elsewhere as synonymous with "Map of the World" and may be found in the letter of Waldseemuller to Amerbach, previously cited, and in the poem of dedication by Ringmann to the Emperor Maximilian I. (See l.c., p. 2.)

# STORY OF THE FOUR VOYAGES OF AMERICO VESPUCCI

Quatuor Americi Vespucii navigationes

ON THE title-page of the second section, which contains the account of the four voyages of Amerigo Vespucci, the translator states that he had done it into Latin from the French,—"de vulgari Gallico in Latinum."

The dedication prefacing the actual account of the journey runs thus:

"Illustrissimo Renato Iherusalem et Siciliæ regi, duci Lothoringiæ ac Barnensi, Americus Vesputius humilem reverentiam et debitam recommendationem."

According to this, Amerigo Vespucci must evidently have sent the story of his travels, written in French, to René, the titular King of Jerusalem and Duke of Lorraine.

Walter Ludd, too, declares in his work entitled, Speculi orbis declaratio, printed also in 1507 by Joh. Grieninger at Strasburg, that the account of the four voyages, written in French, had been sent from Portugal to Duke René. In the same

<sup>&</sup>lt;sup>1</sup> See p. 41 of our facsimile.

<sup>&</sup>lt;sup>2</sup> l.c., p. 42.

work Ludd also informs us that it was he who urged its translation into Latin, and that he had entrusted Joh. Basinus with its execution: "Quarum etiam regionum descriptionem ex Portugallia ad te, Illustrissime rex Renate, gallico sermone missam Joannes Basinus Sendacurius insignis poeta, a me exoratus qua pollet elegantia latine interpretavit."

Now it seems very strange that an Italian like Amerigo Vespucci should have sent an account of his voyages from Portugal to the Duke of Lorraine and in the French language. It may be conceded that Duke René may have received the account of Amerigo Vespucci from Portugal at the same time when he received the Portuguese sea-charts, a question we shall consider later. It is possible, also, that Vespucci wrote his report in French, for we know that in his youth he sojourned in France for some time as secretary of one of his relatives, who was the Florentine envoy at the court of Louis XI.2 But it is inconceivable that Amerigo Vespucci should have addressed his report to the Duke of Lorraine. With Duke René Vespucci

<sup>&</sup>lt;sup>1</sup> Concerning this work of the utmost rarity and interest see R. H. Major, *Memoir on a mappemonde by Leonardo da Vinci* Archæologia Vol. XL. (London, 1865) p. 21 and 31; Harrisse, *B.A.V.* p. 99 seq. D'Avezac, l.c., 65; F. v. Wieser, Magalhæs-Strasse, p. 118.

<sup>&</sup>lt;sup>2</sup> Cf. on this point G. Uzielli, *Toscanelli* 1893, p. 13 et seq., 23 et seq.; L. Gallois, l.c., Bulletin 1900, p. 72.

had no personal relations. When, however, in the dedication to the Four Voyages, we read that Vespucci reminds the addressee of the friendship which had existed between "them" in the days "they" were students together at the house of his uncle, G. Antonio Vespucci, in Florence, we can entertain no doubt that Vespucci did not send his account to Duke René. Moreover, we know that Vespucci was an intimate friend and fellow-student of his countryman, Pietro Soderini, subsequently Gonfaloniere, of Florence.2 The passage quoted from the dedication as well as the address used, "Vuostra Magnificentia," in the Italian edition of the Quatuor Navigationes is quite applicable to Soderini. These passages as well as others referring to Soderini were inadvertently reproduced in the Latin translation, while all other phrases relating to the recipient of the letter were so adapted as to fit Duke René of Lorraine.

It seems more than probable that Vespucci wrote the account of his four voyages to Soderini in Italian. As a matter of fact, there

¹ Ubi recordabitur, quod olim mutuam habuerimus inter nos amiciciam tempore iuventutis nostræ, cum grammaticæ rudimenta imbibentes sub probata vita et doctrina venerabilis et religiosi fratris de S. Marco Fratris Georgii Anthonii Vesputii avunculi mei pariter militaremus. (See p. 43 of facsimile.)

<sup>&</sup>lt;sup>2</sup> See Bandini, Vita et Lettere di Amerigo Vespucci, Florence, 1745, p. xxv; Fr. Bartolozzi, Ricerche istorico-critiche circa alle scoperte di Amerigo Vespucci, Florence, 1789, p. 67.

exists a very ancient printed edition of the work which, while undated, must belong to the sixteenth century, judging from its typography.1 This original Italian edition was then translated into French and thence into Latin by Basinus Sendacurius at St. Dié. Waldseemüller in the Cosmographiæ Introductio (p. 18) explicitly states: "Quatuor Navigationes ex Italico sermone in Gallicum et ex Gallico in latinum versæ." It must be left undecided whether the French version was actually translated in Portugal as intimated by Walter Ludd, or whether it was made in Paris, a city with which Duke René, of course, was in constant communication. It is also doubtful whether the flattering substitution of the name of René as the intended recipient of the report was made while it was being translated into French or by Basinus Sendacurius,2

<sup>1</sup> In regard to the different editions of the Vespucci letters and the literature dealing therewith, read besides the works cited above, D'Avezac, Meaume, Gallois, and particularly Harrisse Bibliotheca Americana Vetustissima, p. 55 et seq., and Additions p. xxii et seq., F. A. de Varnhagen, Amerigo Vespucci, son caractère, ses ecrits (mèmes les moins authentiques), sa vie et ses navigations, Lima 1865, p. 9 et seq. and 27 et seq., and the introductions of the 2 facsimile-editions of the "Lettera" by B. Quaritch, London 1885 and 1893.

The Latin text of Sendacurius was included by Simon Grynæus in his well-known collection of voyages, Novus orbis (Basel 1532, Paris 1532, Basel 1537 and 1555; German edition appeared 1534. In more recent times M. F. Navarrete reprinted the entire Latin text in his Colection de los viages y descubrimientos, III, Madrid 1829, p. 191 et seq.; F. A. de Varnhagen, Amerigo Vespucci p. 34 et seq.; G. Berchet Fonte Italiane per la storea della Scoperta del nuovo mondo, Rome 1893, et sq.; J. Boyd-Thacher, l.c., reproduces the report of the first voyage.

The Quatuor Navigationes contained the most complete and substantial account of the transatlantic discoveries which had appeared up to that time. Vespucci, during those four expeditions, became acquainted with extensive tracts of the South American Continent, and, according to his own statement, during the third voyage he reached as far south as the fifty-second degree of latitude and there sighted an inhospitable coast.

In a separate account, dealing with the third voyage and published in numerous printed editions, he conceived the vast territories of the southern hemisphere to be one united continent and called it the "New World"—"mundus novus."

It is therefore not surprising that Waldsee-müller got the impression that Amerigo Vespucci was the discoverer of the new continent, and conceived the idea of calling the new continent AMERICA in his honor.

### Ш

# WALDSEEMÜLLER'S LARGE WORLD MAP OF 1507

### Plate I

The map of the world which belongs to the Cosmographiæ Introductio is called Universalis Cosmographiæ descriptio in plano on the title-page of the book. Until quite recently this map was thought to be lost. From reduced copies made by the Swiss cosmographer, Henricus Glareanus, which have but lately come to light, it was possible, however, to obtain a fair

The two maps belonging to the Cosmographiæ Introductio are frequently referred to in the text as "Totius orbis typus tam in solido quam plano," also "Cosmographia tam solida quam plana," or by other terms. See pp. 3, 4, 20, 37, etc., of our facsimile.

of the two reductions of this map by Glareanus the one was found by Fr. v. Wieser in a copy of the Cosmographiæ Introduction belonging to the University Library at Munich, the other by A. Elter in copy of the Ulm-Ptolemy of 1482 belonging to the University Library at Bonn. In this latter work it is explicitly stated, "Secutus Geographum Deodatensem seu potius Vosagensem." See Fr. v. Wieser, Magalhâes-Strasse und Austral-Continent; Innsbruck, 1881, pp. 12, 26; A. Elter, De Henrico Glareano geographo et antiquissima forma "Americæ" commentatio; Festschrift der Bonner Universität, 1896, p. 7 et seq. See also E. Oberhummer, Zwei handschriftliche Karten des Glareanus in der Münchener-Universitätsbibliothek (Jahresbericht der Geogr.-Gesellschaft in München 1892, p. 67 sq.), Edw. Heawood, Glareanus, his Geography and Maps (in the Geographical Journal, London, 1905, p. 647 et seq.). C. F. Close, Glareanus (in the Royal Engineers Journal, 1905, p. 303).

notion of its appearance. A copy of an original print of the map, which had so long been vainly searched for, was ultimately discovered in 1900 by Prof. Jos. Fischer, S.J., in the library of Castle Wolfegg in Würtemberg, belonging to the princely house of Waldburg.

A facsimile edition of this map, which is of the utmost importance to the history of cartography and of the age of transmarine discovery, was published in 1903, together with an exhaustive commentary by Jos. Fischer and Fr. v. Wieser in both German and English.

Although Waldseemüller in the Cosmographiæ Introductio remarks that his map is of larger dimensions than the globe; and though Glareanus in the Munich edition of his copy still more sharply emphasizes the great size of Waldseemüller's map, the newly found original print nevertheless caused a sensation on account of its impressive size, abundant contents, and the artistic merit of its adornment. The map consists of twelve sections engraved on wood,

Die älteste Karte mit dem Namen Amerika aus dem Jahre 1507 und die Carta Marina aus dem Jahre 1516 des M. Waldseemüller (Ilacomilus). The oldest map bearing the name America of the year 1507 and the Carta Marina of the year 1516 by M. Waldseemüller (Ilacomilus). Edited with the assistance of the Imperial Academy of Sciences at Vienna by Prof. Jos. Fisccher, S.J., and Prof. Fr. R. v. Wieser, Innsbruck, Wagner's University Press, 1903. Sole agents for the British Empire and America, Henry Stevens, Son & Stiles, 39 Great Russell Street, London.

<sup>&</sup>lt;sup>2</sup> Etenim ipse auctor id in maximo spatio compinxit ita, ut in codice hoc locum habere nequiret. See E. Oberhummer, l.c., p. 70.

and is arranged in three zones, each of which contains four sections. Each section measures to its edge 45.5 x 62 cm. (18 x 24½ in.). The map, covering thus a space of three square meters—about 36 square feet—represents the earth's form in a modified Ptolemaic coniform projection with curved meridians. On the lower edge, in capital letters, the title is thus inscribed: "UNIVERSALIS COSMOGRAPHIA SECUNDUM PTHOLOMÆI TRADITIONEM ET AMERICI VESPUCII ALIORUMQUE LUSTRATIONES."

The name of the author of this work is nowhere stated nor the date or place of its publication. By circumstantial evidence, however, it can be proved without the shadow of a doubt that at last we have Waldseemüller's long-lost large map of the earth, belonging to the Cosmographiæ Introductio. Among these proofs are the following:

- 1. Its perfect agreement with the two copies of Glareanus, both in projection and in the outline of the several countries.
- 2. The conformity of the map to all the statements made regarding its details in the Cosmographiæ Introductio, such as:
  - a. The title, Universalis Cosmographia.
  - b. The designation of the several countries by means of the coats of arms of their re-

spective rulers, exactly in accordance with the statements made on this point in the Cosmographiæ Introductio, the Imperial Eagle of the German Empire, the Papal Keys, the Crescent of the Sultan of Egypt, the Golden Cross with Branding Irons of the Sultan of Turkey, the Anchor of the Great Khan of Tartary, the Red Cross of Prester John, and the Royal Arms of Spain and Portugal in the newly discovered parts of the world.

- c. The use of small crosses to indicate all places dangerous to navigation.
- d. The name of "America," given to the newly discovered fourth continent.
- e. The fact that the fourth continent is named and depicted as an island.<sup>1</sup>
- f. The agreement of several legends of the chart with those indicated in the Cosmographiæ Introductio.<sup>2</sup>
- 3. The explicit reference to the map made by Waldseemüller himself in his Carta Marina of 1516, which has the same number and size of sheets: Generalem igitur totius orbis typum,

<sup>&</sup>lt;sup>1</sup> Hunc in modum terra iam quadripartita cognoscitur; et sunt tres primæ partes continentes, quarta est insula. See p. 30 of the facsimile.

<sup>&</sup>lt;sup>2</sup> Compare, for instance, the text at the lower left-hand corner of the map with p. 45 of our facsimile print.

<sup>&</sup>lt;sup>8</sup> See Fischer and v. Wieser, The Oldest Map with the Name America, p. ii and Tabula 23.

quem ante annos paucos absolutum non sine grandi labore ex Ptolomei traditione, auctore profecto prænimia vetustate vix nostris temporibus cognito, in lucem edideramus et in mille exemplaria exprimi curavimus... Additis non paucis, quæ per marcum civem venetum... et Cristoforum Columbum et Americum Vesputium capitaneos Portugallenses lustrata fuere.

The antithesis of the Ptolemaic tradition and the new discoveries of the Spaniards and Portuguese is pictorially expressed on the Waldseemüller map of 1507 by the busts of Ptolemy and Amerigo Vespucci.

The principal basis of Waldseemüller's large mappemonde were no doubt the maps of Claudius Ptolemy, which Waldseemüller knew from the Ptolemy edition published at Ulm in 1486. The Tabulæ modernæ of the same edition gave him additional aid in the representation of Italy, Spain, France, and the territories of the North. In designing Germany, he made good use of Ezlaub's map for travelers, published a short time previously. Another source of information were the travels of Marco Polo, which he utilized for his designs of northern and eastern Asia as well as of the southern and

<sup>&</sup>lt;sup>1</sup> See A. Wolkenhauer, Über die ältesten Reisekarten von Deutschland aus dem Ende des 15. u. dem Anfang des 16. Jahrhunderts (Deutsche Geographische Blätter, vol. xxvi, fasc. 3 & 4, Bremen, 1903).

eastern islands of Asia. In making his drawing of these territories, Waldseemüller also made use of a map on which all countries described by Marco Polo were represented just as on a map of the world by Martellus Germanus, or on the Globe of Martin Behaim. As for the representation of the interior of Africa, there was at Waldseemüller's disposal an interesting Special Map of Abyssinia, whose specifications, however, he wrongly localized by making the Blue Nile appear to discharge its waters into the White Nile from the left, and by shifting the territory about Lake Tana (Sahaf lacus) to South Africa.

For his designs of the lands just discovered by the Spaniards and Portuguese, Waldseemüller, according to his own statement, followed certain sea-charts, cartas marinas sequuti sumus. We can prove positively that Waldseemüller made use of two Portuguese sea-charts in preparing his large map of the world. One of them must have been of the same type as the Hamy map, formerly known as the "King map."

<sup>1</sup> See Fischer and v. Wieser, The Oldest Map with the Name America, p. 25 et seq.

<sup>&</sup>lt;sup>2</sup> See "Map of the World by Jodocus Hondius 1611," ed. by E. L. Stevenson, Ph.D., and Jos. Fischer, S.J., New York, 1907, p. 15. Prof. Fischer will soon publish this map of Abyssinia, of which he has found three variants.

<sup>&</sup>lt;sup>3</sup> See p. 37 of the facsimile.

<sup>&</sup>lt;sup>4</sup> The Hamy map was first published by E. T. Hamy in the Bulletin de géographie historique, 1886, and subsequently in his work,

Waldseemüller's principal cartographic source of information, however, regarding the newly discovered territories was, as we have shown in our earlier work, the *Canerio map*. From Canerio Waldseemüller borrowed both the outlines and the legends for the representation of the coasts of the New World and South Africa.

The agreement of the two charts is so marked and extends to so many minor details of drawing in precisely the same places—as, for instance, the placing of the Padrâos, of the elephant in South Africa, of the armorial bearings, etc., in precisely the same positions—that it could not have been a map of the Canerio type which served Waldseemüller as the chief reference for his great work, but must have been Canerio's map itself, now preserved in the Naval Archives of Paris.

Waldseemüller's great map of the world produced a profound and lasting impression on cartography; it was a map of wholly new type and represented the earth with a grandeur never before attempted.

Ere many years had elapsed, many reduced copies of the work appeared; for instance, in 1510 the above-mentioned manuscript reproduc-

Études hist. et géogr., Paris, 1896. See also Nordenskiöld, Periplus, plate xlv.

<sup>&</sup>lt;sup>1</sup> Fischer and v. Wieser, The Oldest Map, p. 27 et seq.

<sup>&</sup>lt;sup>2</sup> L. Gallois, Le Portulan de Nocolas de Canerio, in the Bulletin de la Société de géogr. de Lyon, 1890; G. Marcel, Reproductions de cartes et de globes, Paris, 1893; Harrisse, Discovery of North America, pl. xiv.

tions of Henricus Glareanus; another in 1520 in the Vienna Solinus edition; and still another in 1522 in the Basel edition of Pomponius Mela; these were the work of Petrus Apianus.

Even the small hemispherical maps next to the busts of Ptolemy and Amerigo Vespucci on the upper edge of the large map were repeatedly reproduced in the original size, as, for instance, by Joh. Stobnicza in his *Introductio in Ptholomei Cosmographiam*, printed in Krakow in 1512, and in manuscript form by Glareanus and Sebastian Münster.

Waldseemüller's map of 1507 was still more widely spread by numerous adaptations, such as those of Joh. Schöner, Peter Apian, Joachim Vadian, Sebastian Münster, Gemma Frisius, Kaspar Vopelius, and Abraham Ortelius.

In the little mappemonde, Universalis Cosmographia, attached to the numerous editions of the Rudimenta Cosmographica by the Transylvanian humanist, Joh. Honterus, and which passed thence into other works, Waldseemüller's World Map continued to exist nearly unchanged for almost a century.

<sup>&</sup>lt;sup>1</sup> Appearing first in Krakow: Matthias Scharffenbergius excud. 530.

<sup>&</sup>lt;sup>2</sup> For more detailed indications about the propagation and influence of Waldseemüller's drawing of the world, see Fischer and v. Wieser, l.c., p. 36 et seq.

#### IV

#### WALDSEEMÜLLER'S GLOBE OF 1507

#### Plate II

THE reference made in the title of the Cosmographiæ Introductio to a "Universalis cosmographiæ descriptio tam in solido quam plano" has been variously interpreted by scholars studying Waldseemüller's works. On the one hand the view was taken that the expression referred to two maps, one of which, in solido, represented a small chart in the form of a planisphere; while on the other hand it was contended that the words "tam in solido quam plano" signified but one complete map, on which small hemispherical supplementary maps had been inscribed in addition to the large chart.2 This latter contention was apparently justified by the rediscovery of Waldseemüller's map of 1507; for here are actually two small supplementary maps above the large one, representing, respectively, the Eastern and Western Hemisphere. On closer examination, however, it is clear that these two hemispherical charts

<sup>&</sup>lt;sup>1</sup> Breusing, Leitfaden durch das Wiegenalter der Kartographie, Frankfurt, 1883, p. 31.

<sup>&</sup>lt;sup>2</sup> Elter, l.c., pp. 21, 23.

can not be identified with the Universalis Cosmographiæ descriptio in solido.

It is expressly stated in the Cosmographiæ Introductio that the globe and the large map of the world differ in their indications of the degrees of latitude; for while on the globe the equator is marked in accordance with information derived from sea-charts and from accounts of the voyages of Vespucci, on the map it is drawn according to the system of Ptolemy.¹ When, however, we compare the hemispherical charts with the main map, no difference can be perceived in their location of the equator relative to the countries of the world, a fact particularly noticeable on the western coast of Africa.

There exists, however, in the Hauslab-Liech-tenstein Collection at Vienna, a printed representation of the terrestrial globe in strips, the only one hitherto found, which agrees with the statements published in the Cosmographiæ Introductio. The coast of Guinea on this globe approaches about ten degrees closer to the equator than on the large map of the world or on the

<sup>1...</sup> nos in depingendis tabulis typi generalis non omnimodo sequutos esse Ptholomæum præsertim circa novas terras, ubi in cartis marinis aliter animadvertimus æquatorem constitui quam Ptholomæus fecerit... Et ita quidem temperavimus rem ut in plano circa novas terras et alia quæpiam Ptholomæum, in solido vero, quod plano additur, descriptionem Americi subsequentem sectati fuerimus. See p. 37 et seq. of facsimile.

<sup>&</sup>lt;sup>2</sup> Plate II gives these globe-strips on a scale of 2:3 of the original.

small charts representing the hemispheres. In Central America the Tropic of Cancer appears to the south of Hayti, while on the large map of the world its course is laid directly through the island of Isabella, or Cuba, as it is now called.

In the representation of America on the Hauslab-Liechtenstein globe the degrees of latitude correspond exactly with those found on contemporary Spanish and Portuguese maps such as those of Juan de la Cosa, of Bartholomeo Colombo, of the Hamy map, of the Cantino, and of the Canerio maps.

While the degrees of latitude of Africa do not exactly follow those of the Portuguese maps, Waldseemüller still being greatly influenced in these by Ptolemy, the Hauslab-Liechtenstein globe-strips correspond in every other particular with the details of the large map of 1507.

Attached to an edition of the Cosmographiæ Introductio published in Lyons there is a small printed chart representing the globe, which corresponds with the Hauslab-Liechtenstein copy not only in the drawing and the disposition of the various territories, but also in the degrees of latitude above mentioned.

From all these facts we may safely infer that in the Hauslab-Liechtenstein globe-strips we possess the long-sought-for Waldseemüller globe

of 1507. It is the merit of F. A. de Varnhagen and L. Gallois to have been the first to establish this identity.

In 1509 there appeared in Strasburg a new edition of the Cosmographiæ Introductio put forth by John Grieninger, an extremely active printer and publisher, on which Waldseemüller's' (Ilacomilus) name appears as that of the author. Grieninger, who was given to popularizing literature, at the same time published a German translation of the Quatuor Navigationes, of which two editions appeared in close succession, one about Mid-Lent, the other at Lætare. As a supplement to this German translation, giving an account of the four voyages of Amerigo Vespucci, a small booklet was published by Grieninger, entitled Der welt kugel Beschrybung (Description of the Globe).

<sup>2</sup> Cosmographiæ Introductio. . . . Pressit apud Argentoracos hoc opus Ingeniosus vir Joannes Grüniger. Anno post natum salvatorem

super sesquimillesimum nono. Harrisse, B. A. V., p. 116.

Der welt kugel Beschrybung: der Welt und dess gantzen Ert-

<sup>&</sup>lt;sup>1</sup> F. A. de Varnhagen, Jo. Schöner o P. Apianus (Bienewitz): Influencia de um o outro e de varios de seus contemporaneos. Vienna, 1872, p. 47 et seq. L. Gallois, Les Géographes allemands de la Renaissance, Paris, 1890, p. 48 et seq., and Bulletin, l.c., p. 78 et seq.

<sup>&</sup>lt;sup>3</sup> Disz büchlin saget wie die zwen durchlüchtigsten herren herr Fernandus K. zü Castilien und herr Emanuel K. zü Portugal baben das weyte mör ersüchet unnd funden vil Insulen unnd ein Nüwe welt von wilden nackenden Leüten, vormals unbekant. Gedruckt zü Strassburg durch Johannen Grüninger. Im iar MCCCCIX uff mitfast. Wie du aber dye Kugel und beschreibung der gantzenn welt virston sollt, würst du hernach finden unnd lesen. Harrisse, Add., p. 43; B. A. V., p. 118, the same title can be found, only it is not uff mitfast but uff Letare.

A few months later, toward the end of August, 1509, another publication by Grieninger appeared, entitled Globus mundi declaratio, which is a Latin translation of Der welt kugel Beschrybung. In both these descriptions of the globe, reference is made not only to a small sphere belonging to the work but also to "unser grosse Mappa." Considering all that has been said we cannot resist the conjecture that by this small globe and this large "Mappa" are meant Waldseemüller's two charts and that they are new impressions from the original woodcuts of 1507.

As regards the large map of the world this may be unhesitatingly admitted, for there is nothing whatever known of a later edition; and

treichs hie angezogt und vergleicht einer rotunden kuglen, die dan sunderlich gemacht hie zu gehörende, darin der Kauffman und ein ietlicher sehen und mercken mag, wie die menschen unden gegen uns wonen und wie die son umbgang, herin beschriben mit vil seltzamen dingen. Getruckt zu Strassburg. Von Johanne Grüniger im yar M.D. IX uff ostern. Johanne Adelpho castigatore. Harrisse, Add., p. 43 et seq.

Wie weit aber also sei von einem ort zu dem andern, daz ist mysslich in dieser kleinen Kuglen ze wüssen der grad halb so alhie nit mögen beschriben noch bezeichnet werdenn, sonder so du das begerest ze wüssen, Mustu unser grosse Mappa anschauwen. "Der welt Kugel Beschrybung," Cap. xii.

In the Latin edition, Globus mundi declaratio, this paragraph reads as follows: Quantum vero locus unus a reliquo distat, difficile cognituest in hoc parvo globo propter gradus qui assignari omnes non possunt in eo. Si vero idipsum scire volueris mappam majorem considerabis cosmographiæ planæ, in quacertius ac verius apprehendes secundum longum et latum extensos.

<sup>2</sup> This opinion was already (1900) set forth by L. Gallois, Bulletin, l.c., p. 78 et seq.

on account of the great size of the map and the quantity of wood-blocks needed it is also quite improbable that such an edition was published. There are, however, a great many indications that in 1509 Grieninger published a new edition of the small globe in German in order to render this important aid to the study of recent discoveries accessible to the general public.1 The representation of the globe on the title-page of both the German and Latin editions seems to point to this. This vignette represents a hemisphere on which the various countries are distributed in exactly the same manner as on the large globe of 1507, but with a German text. The small slice of the newly discovered Western Continent does not bear the inscription "America," but that of "nuw welt."

From this it must not, however, be inferred that the German globe did not also contain the word "America," as in the German description of the globe both expressions are used indifferently to designate the countries discovered by Vespucci.

To be sure, Waldseemüller did not use the word "America" in his later cartographical works, e.g., the large map of the world and the

<sup>&</sup>lt;sup>1</sup> Formerly authors regarded the globe-strips of the Hauslab-Liechtenstein Collection as belonging to the descriptions of the globe by Grieninger, as for example, D'Avezac, Bull. Soc. géogr., Paris, 1872, p. 16.

Tabula terræ novæ of the Ptolemy edition published in Strasburg, 1513, the map of the world in the Strasburg edition of the Margarita philosophica of 1515, and the large Carta Marina of 1516.

Waldseemüller subsequently became convinced that Amerigo Vespucci should not be regarded as the true discoverer of the New World as he believed in 1507. His attempt, however, to withdraw the word "America," a name he himself invented and used, proved a failure; for his works, published in 1507, had been rapidly spread far and wide in numberless prints, copies, and versions. As early as 1508 Waldseemüller wrote with just pride to his friend and co-worker, Philesius Ringmann, that his globe and world-map of 1507 were disseminated and known and highly commended throughout the whole world.1 In accordance with the proposal made by Waldseemüller in 1507, the name America was, for the time being, restricted to the southern part of the New World. After the lapse of three decades, however, another German cartographer applied the name America to the northern portion of the Western Hemisphere. On Gerhard Mer-

<sup>&</sup>quot; "Cosmographiam universalem tam solidam quam planam non sine gloria et laude per orbem disseminatam." These words are found in Waldseemüller's treatise, "Architecturæ et Perspectivæ Rudimenta," published, 1508, in the Strasburg edition of the Margarita philosophica.

cator's map of the world, published in 1538' and drawn in the double heart-shaped projection of Stabius, the northern part of the New World, "Americæ pars septentrionalis" is contrasted with its southern part, "Americæ pars meridionalis."

Mercator, the great reformer of cartography, who knew the New World as a double continent, was the first to introduce into geographical literature the names North America and South America.

Mariano Cualdfamillare also Tlarompher abo

<sup>1</sup> This map of Mercator, only one copy of which exists (in the library of the American Geographical Society), is reproduced, e.g., in the Facsimile-Atlas of Nordenskiöld, plate xliii.

COSMOGRAPHIAE INTRODY,
CTIO / CVM Q VIBVS
DAM GEOME
TRIAE
AC
ASTRONO
MIAE PRINCIPIIS AD
EAM REM NECESSARIIS:

Insuper quatuor Americi Ves spuci nausgationes.

Vniuerlalis Cosmographie descriptio tam in solido que plano/eis etiam insertis que Ptholomeo ignota a nuperis reperta sunt.

DISTICHON.

Cum deus astra regat/& terræ climata Cæsar Nec tellus nec eis sydera maius habent.

Est Brati Rhonam Solostatimi. M D X.

## MAXIMILIANO CAESARI AVGVSTO PHILESIVS VOGESIGENA.

Cum tua sit vastum Maiestas sacra per orbem Cæsar in extremis Maxmiliane plagis
Qua sol Eois rutilum caput extulit vndis/
Atcp freta Herculeo nomine nota petit:
Quacp dies medius flagranti sydere seruet/
Congelat & Septem terga marina Trio:
Aciubeas regu magnorum maxime princeps
Mitia ad arbitrium sura subire tuum
Hinc tibi deuota generale hoc mente dicauit
Qui mira præsens arte parauit opus.

o Telogs

#### DIVO MAXIMILIANO CAESARI AV GVSTO MARTINVS ILACO MILVS FOELICITA TEMOPTAT.

Si multas adiffe regiones/& populoru vltimos vidisse/nő solu voluptariu sed etiam in vita coduci bile est (quod in Platone / Apollonio Thyanxo atcp alijs multis philosophis/qui indagandaru rere causa remotissimas oras petiuerut /clarum euadit) quis oro inuictissime Casar Maximiliane / regio nu atop vrbium litus / & externorum hominum Quos videt condens radios sub vndas Phœbus extremo veniens ab ortu: Quos premunt Septem gelidi Triones: Quos Nothus sicco violentus estu Torret ardentes recoquens harenas. Quis inqua illoru omniu ritus ae mores ex libris cognoscere iu cundu ac vrile esse inficias ibit? Sane (vt dica quod mea fert opinio) sicut longissime peregrinari lauda bile est/ita de quis cui iple terraru orbis vel ex sola chartaru traditione cognitus est/no absurde repeti identide potest illud Odissex caput quod doctissi Homes mus poetaru Homerus de Vlisse scripsit. Dic mihi mula virū captæ post tempora Troiæ Oui mores hominu multorum vidit & vrbes. Hinc factu est ve me libros Peholomei ad exeplar Grecu quorunda ope p virili recognoscete/& qua tuor Americi Velpuch nauigationu lustrațiões adiți ciete: totius orbis typu tă in solido co plano (velut

#### ANTELOQVIVM

preuiam quandă ysagogen) p comuni studiosoru vilitate parauerim. Que tue sacratissime maiestati cu terraru dis existas dicare statui. Ratus me voti copote/& ab æmuloru machinamentis tuo (tance Achillis) clipeo tutissimu fore/si tue Maiestatis acu tissimo in eis rebus iudicio aliqua saltem ex parte me satis secisse intellexero. Vale Cæsar inclytissi. Ex oppido diui Deodati. Anno post natu Saluato rem supra sesquimillesimu septimo:

TRACTANDORVM ORDO.

Cũ Cosmographiæ noticia sine preuia quadam astronomie cognitione/et ipa etia astronomia sine Geometriæ pricipis plene haberi nequt: dicemus primo in hac succicta îtroductioe paucula de Geometrie inchoamentis ad sphere materialis intellige Deide ad sphera/axis/poli &c. (tia servientibus.

3 De coeli circulis.

Quandă iplius sphere secundu graduu rones The

5 De quinca Zonis celestibus (orică ponemus earundece & graduu coeli ad terram applicatione

6 De Paralellis.

7 De climatibus orbis.

8 De ventis cu eore et aliane reru figura vniuersali

Mono capite queda de divisione terre / de sinibus maris/de insulis/et locore abinuice distatia dicent.

Addet etia quadrans Cosmographo vtilis.

Vltio loco quor Americi Vespucii subsuge. po fectiões. Et Cosm. ta solidă que plană describemus.

# DE PRINCIPIIS GEOMETRIAE AD SPHERAE NOTICIAM NE CESSARIIS CAPVT PRIMVM



VIA IN SEQUENTIBUS

circuli/circumferentie/centri/dias metri/et id genus aliorum crebra mentio fiet: ideo primum nobis fingillatim de talibus breuissime

tractandum venit

Est igitur Circulus / sigura plana vna quidem circumducta linea contenta:in cuius medio puns ctus est/a quo omnes rectæ lineæ ad circudantem lineam eductæ adinuicem sunt equales.

Figura plana/est cuius mediu no subsultat/nece

ab extremis egreditur.

Circuferentia/est linea circulu continens ad qua omnes rectæ lineç a centro circuli eiectæ inter se sut æquales/quæ & ambitus/& circuitus/curuaturacp ac circulus a latinis/grece autem peripheria dicitur.

Centru circuli/est punctus ille a quo omes recte adlinea circulu continente eductæ adinuicem sunt

equales.

Dimidius circulus/est figura plana diametro circuli & medietate circuferentiæ contenta.

Diameter circuli/ est que cucp linea recta per cen A in

#### GEOMETRIAE

tru circuli transiens vtrinca ad circuli peripheriam

Linea recta/est a puncto ad punctu extensio bre uissima.

Angulus/est duaru lineare mutuus cotactus. Est em siguræ particula a linee contactu in amplitudis

nem surgens.

Angulus rectus/est angulus ex linca supra linea cadente/& vtrincp altrinsecus duos adinuice equa les angulos faciente causatus: que si recte linee con tinent rectilineus: si curue/curu un spheraliscp dicei: Obtus e q è recto maior. Acutus recto minor.

Solidu/est corpus longitudine/latitudine/altitu

dinect dimensum.

Altitudo/crassicies/profunditas idem.

Integrum est res tota/aut rei pars que sexagenaria

partitione non prouenit.

Minutum/est sexagesima integri pars.
Secundum/sexagesima pars minuti.
Tertiu sexagesima secundi/& ita deinceps

CAPVT SECVNDVM QVID SPHERA

axis/poli & c.strictissime perdocet.

Anteaco aliquis Cosmographiæ noticia habere possiti/necessum est vt spheræ materialis cognitios nem habeat. Postquod vniuersi orbis descriptione primo a Ptholomeo atca alias traditam/& deinde per alios amplificata/nuper vero ab Americo Ves

#### INCHOAMENTA

sputio satius illustrată facilius intelliget. Igit.

Sphera(vt ea Theodosius in libro de spheris desinit) e solida & corporea sigura vna quide couexa Theo o superficie cotenta/ in cuius medio puctus e/a quo dosius: omnes rectæ ad circuserentia educte adinuice sunt equales. Et cu(vt neotericis placet) decem sint spheræ cœlestes sit materialis sphera ad instar octaue (quod stellisera sit aplanes dicitur) excirculis artisici cialiter adinuicem iunctis per virgulam & axe me dium centrum (que terra est ) tangetem coposita.

Axis spheræ/est linea per centru spheræ trāsiens ex ytracp parte suas extremitates ad spheræ circu/ferentiā applicās: circa quam sphera /sicut rota cir/ca axem carri( qui stipes teres est) intorqtur & co uertitur/estcp ipsius circuli diametrus. De q Mani

lius ita loquitur.

Acra per gelidum tenuis deducitur axis

Sydereus medium circa quem voluitur orbis

Poli (qui & cardines & vertices dicuntur) sunt puncta cœli axem terminantia/ita fixa ut nucis mo ueantur sed perpetuo eodê loco maneant. Et que hic de axe ac polis dicuntur ad octaua spheram re ferêda sunt. Quoniam in presentiarum materialis spheræ determiationê/q (ut diximus) octaue sphe ræ similitudinem habet/suscepimus. Sunt itaqs eo ru duo principales /vnus Septemtrionalis (qui & Arcticus & Borealis apellatur/alter Australis/que

A üŋ

US.

#### SPHERAE MATE

Virgili. Hic vertex nobis semper sublimis /at illum

Sub pedibus stix atra videt manescy profundi. Nos em in Europa & Asia degetes polu Arctio

eu ppetuo videmus: q sic dicit ab Arcto vel Arctu ro maiore Vrsa q & Calisco & Elice nomiai & Se ptetrionalis a septe stellis plaustri/q Triones voci tant: & sut minoris Vrsæ/ quam etiam Cynosura adpellant. Unde Mantuanus Baptista.

Baptif.

Carme. Tu nobis Elice nobis Cynosura /per altum

Te duce vela damus. & E. Item Borealis & Aquilo nicus ab eius mudi parte vento. Nautæstellam ma ris vocare asueuerunt. Huic oppositus est antarcti cus/vñ & nome sortit. Nam anti greca dictio latis ne cotra significat. Is & Nothicus & Austronothi cus dicit: atch a nobis propter terræ circulu qui est deuexus videri non potest/sed ab antipodibus ( qs esse copertu é) cernit. Vbi & obiter anotadu/quod

Deuexu/rei spherice tu more & ventre significat. Couexuyo eius cotrariu est/et cocauitate notat. Sunt preterea duo alij poli ipsius zodiaci/duos in cœl o circulos arcticii. s. & antarcticu describentes. Veru quia zodiaci & arctici atos antarctici ( qui in cœlo sut circuli)mentione secimus: ideo capite ses quenti de circulis tractabimus.

DE CIRCULIS COELICAP. TERTIUM. Duplices sut circuli q & segmia ab auctoribus

dicunt in spera & cœlo no reuera quidem existen?

res sed imaginabiles: maiores. s. Minores.

Maior circulus is est/qui in couexa supficie sphe re descriptus ipsam in duo equa dividit/horu sunt sex. Aequator. s. Zodiacus/Colurus æquinoctios ru/Colurus solsticions/Meridianus/& Horizon.

Circulus minor in sphera e qui in eade sphere su perficie descriptus spheram minime in duo equa di uidit: Tales sunt quatuor. Arcticus/Cancri/Capri corni/& Antarcticus. Ita summatim sunt dece de quibus debita serie et primo quidem de maioribus dicemus.

Aequator(qui & primi mobilis cingulus/et equi noctialis dicit) est circulus maior spheram in duo æqualia diuidens/secundum quamlibet sui partem ab vtrocp polo eque distans. Sic dictus quonia so le ipsum transeunte (quod bis in anno in principio arietis. s.mese Martio/& pricipio libre mense sepetembri contingit) toto terraru orbe æquinoctium & dies noctiæqualis est.

Aequinoctiu Marcij /arietis/vernale:

Aequinoctium Septembris/libræ/authumnale: Zodiacus/est circulus maior æquatorem in duo bus punctis(que sunt principia arietis & libræ)diri mens/cuius vna medictatu ad septemtrione/altera vero ad Austrum declinat. Ita dictus vel a zodion quod animal significat/qin duodecim animalia in

#### SPHERAE MATE.

le habet/vel 2 zoe quod est vita: quia omniù inferi oru vita secundu planetaru motus sub ipsa esse dig noscit. Latini eu signiferu vocant/cp.xij. signa in se ferat. Atcp obliquu circulu. Hinc & Maro infit Obliquus qua se signoru verteret ordo

liquus qua se signoru verteret ordo.

În media zodiaci latitudine circularis linea ipsum in duo equa parties et vitro citroca sex latitu. gra. relinquis îtelligit: qua Ecliptica vocat/eo quod nue op solis aut lunæ deli quiu & eclipsis contingat/nisi eorum vterca sub ea linea in eodem vel oppositis gradibus decurrat. În eodem si solare suturu sit deli quium. În oppositis vero si ipsius lunæ. Et sol seme per sub ea linea medius incedit/neca vitro deuiat. Luna aut & cæteri planetarum nunc sub ca/ nunc citra vel vitra expaciati vagantur.

Duo sunt in sphera coluri/qui solsticia & çqui noctia distinguut. Ita a Colon græce quod mem brum significat/& vris bobus (quos magnitudine Cæsar. Elephantu Cæsar comentarion lib. ii ii. in Hercinia silua esse ait) dicti/qin sicut cauda bouis membru/ erecta semicirculu & non completu facit/ita nobis colurus semper impersectus apparet. Vna em me

dietas videtur/cum alia sit occultata.

Colurus solsticioru qui & declinationu dicitur est circulus maior per principia cancri & capricore ni/p polos ecliptice paris & polos mundi trasiens.

Aequinoctiorum colurus itidem circulus maior

est per principia arietis ac libræ/& mudi polos tra

Meridianus est circulus maior per punctu verti 5 cis & polos mundi transiens. Tales in generalibus mostris tam solido & plano decem gradibus abino uice distinximus. Est aut puctu verticis (quod & zenith dicit) in coelo puctus directe rei suppositus.

Horizon(quem finitore quo à dicunt) est sphe ræ circulus maior superius hemispherium (id est di midiu spheræ) ab inferiori dividens. Est à in que sub divo consistentiu /circuducentium poculos vi det obtutus desicere: qui et partem cœli visam a no visa dirimere cernitur. Diversaru aut regionu varie us est horizon: & omniu horizontiu capitis vere rex/ polus dicit. Nam tale punctu omniquaça ab sinitore at a ipso horizonte eque distat. Et hæc de circulis maioribus/nunc ad minores veniamus.

Circulus arcticus é circulus minor qué polus 206 7 diaci ad motú primi mobilis circa polú mundi are cticum describit.

Antarcticus/est circulus minor que alter polus zodiaci circa polu mundi antarcticu causat ates de scribit. Nucupamus aut polu zodiaci de quo etia superiori capite diximus punctu vndecues ab ecliptica eque distante. Sut em poli zodiaci axis ecliptice extreitates. Et esta e maxia solis declinatio de superiori punca plura) tata e poli zod. a polo mudi distatia

#### SPHERAE MATE.

Tropicus Cancri est/circulus minor quem sol in principio cancri existes ad motu primi mobilis dee scribit/qui & solsticium estiuu dicitur.

Tropicus capricorni/est circulus minor que sol initiu capricorni tenens ad motu primi mobilis des

scribit. Hunc etiam circulu brume dicimus.

Ceterum quia declinationis mentione fœcimus

Declinatione esse quando sol de equinoctiali ad Tropicu cancriscandit/vel ad capricorni tropicu a nobis descendit.

A scensione pro cotrario accipimus/qñ.s. a troe picis equatori propinquat. Licet acyros & improe prie a quibusdă dicatur ascendere quando nobis pinquat/& descendere cu a nobis discedit. Hactee nus de circulis/iam ad spheræ Theoricam et latiore quanda graduu quibus tales abinuicem distent spe culationem accedamus.

CAPVT QVARTVM

De quadam sphere Theorica secundu

graduu rationes.

Sphera celestis quince ligatur circulis principal ligatur circulis principa

Quincp tenent cœlū zonæ: quaru vna coruleo Semper sole rubens/& torrida semper ab 19ni est Quam circu extremæ dextra læuacp trahuntur Cerulea glacie concretæ atop himbribus atris/ Has inter mediam cp duæ mortalibus ægris Munere concesse diuu: & via secta per ambas Obliquus qua se signorū verteret ordo.

De quaru qualitate in sequentibus plura dicent. Quia so superius tetigimus es polus Zodiaci scir culu arcticu describat: ideo pro viteriori speculatio ne sciendu hoc de superiori Zodiaci polo (qui in 66. gradu & 9. min. eleuatiois situs c/ates a polo ar ctico. 22. gradibus ac. 51. mi. distatsitelli gi oportere:

Vbi & illud non ignorandū Gradum tricelimā Grad. ligni partem esse. Et Signū duodecimam circuli, Signū. At triginta duodecies mitiplicata.360.reddūt.

Quare liquidu enadit quod gradus iteru tricente sima et sexagelima circuli pars esse definiri posset.

Circulum aut Antarcticum polus Zodiaci inferior describit: qui in eodé gradu declinationis situs est et eque a polo antarctico distatsicut superior ab arctico.

Tropicu cancri/eclipticæ reflexio/ siue maxima solis solus septemtrione declinatio (que ab equino ctiali ad.33: grad: 8.51.min. sita est) designat.

Tropicu capricorni alia Eclypticæ reflexio/ siue

B

#### SPHERAE MATE.

maxima solis yssus Austrum declinatio (que ad to/ tidem gradus sicut predicta sita est) describit.

Distantia inter tropicu cancri & circulu arcticu est. 22. graduu & .18. miñ. Totidem etiam graduu est distantia inter tropicu capricorni & circulum antarcticum.

Aequatorem media coeli amplitudo a polis mu

di equedistans efficit.

Huc vscp de quincp zonis & earum abinuicem die stantia. cosequenter etiam strictim de reliquis que dam trademus.

Circulu zodiaci eius iplius poli ostendut/a quis bus vice ad tropicos (id est maximas solis declinas nes & solsticia). 22: grad. & .18. mi. sut. Est ce zodiaci latitudo ab ecliptica y sus vtros ce tropicos sex gras

duum & in vniuerfum.12. grad.

Coluros declination a alcention u fignant solo sticia & equinoctia/hipp sub polis mundi sese per axem cœli ad angulos rectos spherales interfecat. Similiter per equator e Sed per Zodaciu æquino ctiorum coluri vadentes costituunt angulos oblio quos cu per solsticiorum zod rectos causent.

Circulum meridionalem (mobilem quidem) axis

idem sub ipsis polis continet.

Horizontis circulu/declarat zenith. Ipsum enim tanco polus eius superior existes vbico ab eo eque distat. Atop dividit idem circulus horizontis/hemi

#### RVDIMENT A.

Ipheriu nostru ab altero per solis ortu & occasum:
His vero qui sub æquinoctiali sunt per vtrosog mu
di polos. Et distat semper zenith in omni horizote
ab ipsius circuferentia. 90. gradibus qui sunt quarta
pars circuli. Est op peripheria horizontis quater die
stantiam inter zenith & horizonta superans.

Id demu ammaduersione no est indignum axem mudi in materiali sphera diametraliter ab eiusdem polis per centru mundi(que est terra) transire.

Axis vero zodiaci in sphera no apparet sed intel ligendus est. & hic axem mundi medium ad angus los impares siue obliquos in centro intersecat.

Hoc modo in ipla mundi fabrica mirabilis series & reru ordo precipuus esse videtur: cuius imagine veteres astronomi describentes factoris ipsius qua tum sieri potuit vestigia (qui omnia in numero poe dere & mensura sœcit) sequuni sunt. Nos quoce ea de re tractantes spaciținiquitate sic exclusi vt ratio minutoru non vel vix possit observarii/& si observuaretur etiam tedium cum errore gigneret/a plæmis graduum annotationibus circulorum positiomem sumemus. Nam non multum distat inter .51. min. & plenum gradum qui sexaginta minuta con tinet sicuti supradiximus/atcp in libro de sphera & aliubi ab harum rerum studiosis examussim dedamatur. Itacp in sigura quam pro talium intelligene tia hocloco subiungemus ipsi bini tropici cancri. s.

#### SPHERAE MATE.

interceptu spaciu/temporata at & habitabilis. Ters tia totu inter.d.e.f.g. medium spaciu feruore male egrecp habitabilis. Sol em illic secundu linea.f.e. (quo nobis ecliptică designat) assidua volubilitate gyros duces suo feruore ea reddit torridă at cu inhabitată Quarta est totu inter.f.g.et.h.k. spaciu temperata at cap habitabilis/si aquaru vastitas & al tera coeli fa cies id impune sinat. Quinta est totum inter.h.k.i. interclusum spaciu frigore semper horrens at cap ins

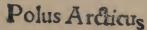
nam vel habitatā vel inhabitatā/hāc denominatios nem a limili zona terræ illi cœlesti plagæ subiecta intelligi volumus: & qñ habitatā aut habitabilē di cimus/bene & facile habitabilem. Cū vero inhabis tatam vel inhabitabilē/egre dissicilecs habitabilem intelligimus. Sunt em qui exustam torridam ca zonam nuc habitant multi. Vt qui Chersonesum aus ram incolūt/vt Taprobanenses/Aethiopes/et ma xima pars terrę semper incognitæ nuper ab Ameri w Vesputio repertę. Q ua de re ipsius quatuor sub iungentur nauigationes ex Italico sermone in Galalicum/& ex Gallico in latinum versæ.

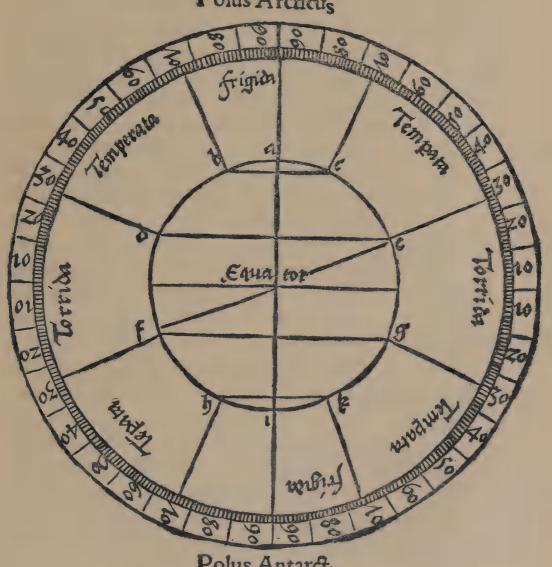
Itacp sciendu quod (vt & subseques indicatsigu ra) prima zona q polo arctico proxima est.23.gras

dus latitudinis &.51.miñ. habet.

Secuda que antarctica atopilli ipsi par est/totidem Tertia temperata. 82.8.18. miñ.

Quarta que par est /totidem Quinta vo torrida & media gradus. 27.86.22 mi-Sed horu quendam typum ponamus.





Polus Antarct.

## SPHERAE MATE. CAPVT SEXTVM DE PARALELLIS

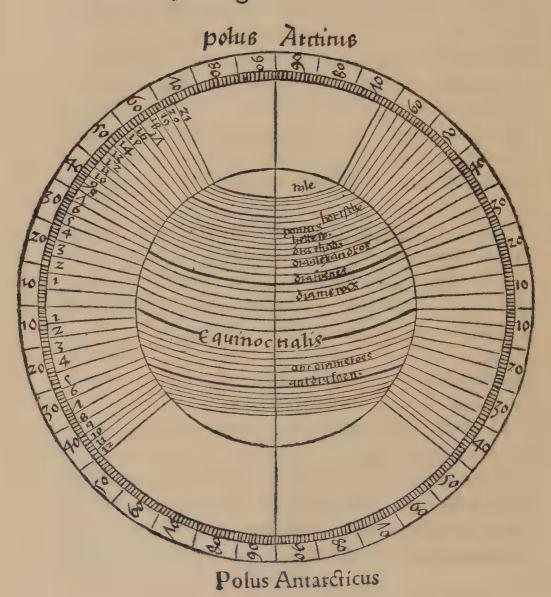
Paralelli(qui & Almucantharat dicunt) sunt cir culi vel linez quoquo versus/atop ex omni parte æquedistantes/& nunce si possent etiam in infinis tum ptrahi cocurrentes. Qualis est in sphera equa tor cum alijs quatuor circulis minoribus. Nõ quia quantu primus a fecundo/tantum secundus a tere tio distet : nam hoc salsum est/vt ex precedetibus li quet/sed quilibet duo circuli simuliuncti secuns du qualibet sui pte eque abinuice sint distates. No enim est equator ex vna parte altero tropicoru co ex alia vicinior aut distantior/ cum omniquaça a tropicis sicut prediximus. 23. gradibus & .51. mia nutis distet. Simili modo de tropicis ad duos extre mos dicendum elt: quorum vterce ex omnibus sui partibus ab vtrog. 22. gradibus &. 22. minutis di Stant.

Licet vo possent para lelli ad libitum cuiuslibet distantes describi nobis tamen pro faciliori suppu tatione conuenientissimum visum est (quod et ipsi Ptholomeo placuit) vt tam in solida ex plana Cose mographiæ generalis descriptione ipsos tot gradi bus abinuice secerneremus/quot sequens formula ostendit. Cui etia sigura subiungetur in qua para los per terra vtrica ad spheram cœli protrahemus.

Paralelli	gradus	Hore dies	Quot milli:	
ab equat.		u ma.	fa ava vonve	B.
21 Diatiles 8	63	20	28.2	ma
20	61 1	19		2
19	58	18	32.2	limata cu gradibus paralellore fimul horas
1.8	56	17	支	rac
17		17	37.2	101
116 Diarhip.7	51.2	16.2	20.2	dsi
15 Diabor.6	128.2	16	22.2	ara
12	25	15.2	22	dell
113	23.12	15.克	25	OR
12 Diarho.5!	4	15	97	
111	38. 2.12	12.2.2.	28.2	nuf
10 Diarhod. 2	36	12.2	150	То
9	33.3	12.支		ras
8Diaalex.3	30.3	12	5,2	-
7	27.2.5	13.2.2		
6 Diasienes 2	23.2.3	13.2	57	ua
5	120.0	13.2		E
2 Diamero.1	16.3.12	13		1 3
3	12.2	12.2.2		Insinuat numeris ista
2	8.3.12	$12.\frac{1}{2}$		高
1	2.2	12.克	59	
Aeqtorapolis	eqdistans	12 cotinue	60	lag .
1	2.2	12.支	59	figura fuis.
2	8. 7.12	12.2		SIL
3	12.2	12.2.3		1
2 Diameroes		13.		1
5	20.0.	13.克		] =

1	Para. & cli.	Gradus	Hore	Milliaria
	6 Antidialienes	23.23	13.2	52
	7.	27.26	13.2 2	

Et ita deinceps vssus Antarcticum polu. Quod & subsequens sigura comonstrat.



XXII

De climatibus caput.vij.

Licet clima proprie regio interpretetur/hoc tas men loco spaciu terre inter duas equedistantes apa pellatur/in quo porrectissime diei ab initio climatis vsep ad sinem dimidie hore variatio est. Et quottu aliquod clima ab equatore suerit/tot semihoris son gissima eius loci dies superat diem nocti equalem. Sunter ipsorum Septemgemina: quis ad austrum no sit septimum adhuc sustratum. Sed Boream ver sus Ptholomeus terram septem semihorarii spacio hospitalem & habitabile inuenit: que septem clima ab insigni aut Vrbe/aut suuio/aut mote sua no mina sunt sortita.

Primu dicitur Dia Meroes/a dia quod apud gre cos per lignificat/& casu patrio iungit. Atèp a Me roe que é Africe ciuitas in torrida zona citra equatore. 16. gradib us sita/in quo paralello & ipse Nie lus esse inuenitur. Eius/& subsequetium etia initiu medium & sinem atep maxime diei in quolibet ipo rum horas generale nostru (pro cuius intelligentia hec scribimus) tibi liquido ostendet.

Dia Sienes a Siene Aegipti vrbe/quod e puicie

Thebaidos principium

Dia Alexandrias. Ab Alexandria insigni vrbe 3 Africæ Aegipti Metropoli: quam Alexander Ma gnus condidit: de quo dictu est 1 poeta. Vnus Pel leo iuueni non fusficit orbis.

a ij

#### SPHERAE MAT.

Rho Dia Rhodon /a Rhodo Afie minoris insula: que & sui nominis in ea sitam nostra tempestate clară ciuitatem habet/sortiter Thurcaru esseros bellicos competus sustinentem/atop prostigantem genero sissime.

DiaRhomes /ab vrbe Europe notissima/iter Ita licas maxime clara/& insigni olim gentiu domitrie ce/at& orbis capite/nuc patris patru maximi sede.

DiaBorischenes /a magno Scytharu fluuio qui

est quartus ab Histro.

DiaRhipheon/a Ripheis montibus qui in Sara matica Europa insignes sunt perpetua niue cande tes.

Ab his inlignibus locis per que serme climatum lineæ medie transeunt septem climata (que Ptholo

meus posuit)sua sortiuntur nomina.

Octauu Ptholomçus no posuit/cum illud terre (quodeunce est) ipsi incognitu a nuperioribus lus stratu sit. & dicitur Diatyles/quod ipsius principiu (qui est Paralellus ab equatore 21.) rectissime per Tylen sit, ptensus. Est aut Tyle Septemtrionalis in

Virgili fula de qua Maro noster/Tibi seruiet vitima Tyle.

Et hec de climatibus ab equatore Septemtrione

fus. Pari mo dicendu est de eis que sut vitra equi

noctiale ad Austrum/quoru sex contraria nomina
habentia sunt lustrata et dici possunt antidia Mero

es/antidia Alexandrias/Antidia Rhodon Antidia

Rhomes/antidiaBorischenes: a greca pticula anti q oppolituvel cotra denotat. Atchin lexto climate Antarcticu versus/& pars extrema Africæ nuper reperta &/Zamzibar/laua minor/& Seula infule & quarta orbis pars (quam quia Americus inueuit Amerigen/quali Americi terră/liue Americă nun Ameri cupare licet) sitæsunt. De quibus Australibns cliø ge matibus hec Pomponii Melle Geographi verba in telligeda sunt /vbi ait. Zone habitabiles paria agut Popo: anni tempora/veru no pariter. Antichthones altes Mellæ ram/nos alteram incolimus. Illius fitus ob ardore in tercedentis plage incognitus/huius dicendus est. Vbi animaduertendum est quod climatu quodos alios of aliud pleruct fœtus pducat/cu diuerle sut nature 782 alia atcp alia syderu virtute moderentur. Vnde Virgilius. Vergi.

Nec vero terre ferre omnes omnia possunt
Hic segetes/illic veniunt sælicius vuç
Arborei sætus alibi/atcp iniussa virescunt
Gramia. None vides croceos vt Thmolus odores
India mittit ebur; mittut sua thura Sabei
At Calybes nudi ferru; virosacp pontus

Costerea. Eliadu palmas Epiros equaru &c.

OCTAVVM CAPVT DE VENTIS.

Quonia in superioribus ventoru aliquando ins cidenter memores suimns (cu.s. posu Boreu/posu Nothicu/atcpid gemis alia diximus) & ipsoru ces

a iŋ

lius

#### SPHERAE MAT.

gnitio nonihil mometi îmo magnă vtilitate ad Cof mographia habere dignoscii: ideo hoc subsequenti capite quedă de ventis (qui & spiritus & status di cunt) trademus. Est igitur ventus (vt a Philosophis definitur) exhalatio calida & sicca lateraliter circa terram mota & c.

Quia vero sol secundu binos tropicos / & ipm eqtore triplice ortu atch occasu /estivale.s. equinos chiale/ac hyemale servat: et meridei similiterch ipius septetrionis vtrinch sint latera/quant quesibet prospriu ventu habet: io sumatim. xq. sunt veti/ tres ori entis/tres occidentis/totide meridei/& medie nos chis totide: ex quas quor qui i sequti formula mes diu locu tenebut pricipaliores sut /ali minus prici.

		O	Cterentino
Collat.	Trop.Canc.		Chorus
Medij.	Aequator.	Subsolāus.	[Fauoni.g
	1		let Zephi.
Collat.	Trop.Cap.		Africus g
		& Vulturn.	let Lybs_

Vento rū fore ma.

Collat.	Meridies	Media nox	
	Euronothus	Septetrio.	
	Auster/qui &   Nothus	Aquilo qui & Boreas.	
Collat.	Lybonothus	Trachias 9 & Circius.	

Poete tri mius pricipales ( d et collafales dicut) p principalioribus ex licentia (vt luus libi mos est) Quidis vlurpare colueuerunt. Hinc & Ouidius ait Eurus ad Aurora Nabatheach regna recessit Persidaç & radijs iuga subdita matutinis. Velper & Occiduo que littora sole tepescunt Proxima sur Zephiro: Scythiam/septecs Triones Horrifer iuualit Boreas/contraria tellus Nubibus assiduis/pluuioce madescit ab Austro Est auté Subsolani aura saluberrima /que a sole

purior & subtilior alijs efficitur.

Zephirus Caloris et humoris temperiem habes Vergi: montiu pruinas resoluit. Vñ ē illud Vergilij Liqui tur et putris Zephiro se gleba resoluit.

Austri flatus crebro tempestatu/pcellaru /atos himbriu psagus e: Quare & Nazo insit. Madidis Ouidi:

Nothus euolat alis.

Aquilo suo rigore aquas ligat/atque constringit Vir. Et glacialis hyems Aquiloibus asperat vndas Virgi: His de ventis Gallinariu nostru multe doctrine Gallina viru lequetes quatuor edere verlículos memini. Eu rus et Eoo flat Subsolanus ab ortu. Flatibus occasum Zephirusce Fauonius implenta Auster in extremis Lybiæ et Nothus Estuat oris. Sudificus Boreas Aquilocpminatur ab axe.

Et licet vēti septentrionales sint natura frigidi/ nihilo tamen minus quando torridam zonam per ajifi

#### COSMOGRAPHIAE

transeunt/mitigantur: sicut & de Austro torridam Zonam anteaça ad nos veniat transeunte/copertu est. Quod sequentibus versibus insinuatur. Quoca loco prodit gelidus surit Auster/ & arctis Cogit aquas vinclis/at dum per torrida statu Sydera transierit/nostras captandus in oras Comeat: & Boreç seuissima tela recorquet

At contra Boreas nobis grauis/orbe sub imo

Fit ratione pari moderatis leuior alis.

Cætera mox varios qua cursus samina mittunt

Imutant proprie naturam sedis eundo.

Hucuscp de ventis dictū sufficiat. Ponamus nuc harz omniū sigurāvniuersalē: in qua sint poli/axes/ circuli cū maiores tum etiam minores/oriens/occi/ dens/quincp zonæ/gradus sogitudinis/latitudinis \*tam ipsius terre op cœli/paralelli/dimata/venti &c.

### CAPVT.IX.DE QVIBVSDAM COS. MOGRAPHIAE RVDIMENTIS.

Omne terre ambitu ad cœli spacium puncti obti nere rationem Astronomicis demonstrationibus constat. Ita vt si ad cœlestis globi magnitudine coe ferat/nihil spacii prorsus habere iudicet. Et huius quidem tam exigue in mundo regionis quarta sere portio est que Ptholomeo cognita a nobis animan tibus scolit. Atcp in tris partes hactenus scissa fuit. Europam/Africam/& Asiam.

Europa ab occidete mari Athlantico/a septe. Bri tanico/ab oriete Thanai/Meotide palude/et poto: a meridie mari mediterraneo claudit / habetop in se Hispaniam/Galliam/Germania/Rhetiam/Italiam/Greciam/ & Sarmatiam. Sic dicta a filia regis Ages noris eius nominis: que dum virginibus Tirijs cos mitata in marino littore puellari studio luderet & canistra storibus stiparet/ab loue in thaure niueum verso rapta illius tergo insedisse /& per equora poti in Cretam delata terre contra iacenti nomen des disse creditur.

Africa ab occidente mari Athlantico/a meridie oceano Aethiopico/a Septemtrione mari mediter raneo/& ab ortu Nili flumine terminatur. Ea in se coplectitur Mauritanias Tingitanam & Cæsarien sem/Libiam interiorem/Numidiam(quã & Mapa liam dicunt)minorem Africam( in qua est Chartago Rhomani imperij olim pertinax æmula) Cyregneica/Marmaricam/Lybiam (quo etia nomine to ta Africa a Libe rege Maurithaiç appellat) Aethio piam interiore/Aegiptu &c.Et dicit Africa quod frigoris rigiditate careat.

Asia (que cæteras magnitudine & opibus logiles sime vincit) ab Europa Thanai fluuio/atcp ab Africa Ischmo (qui in Australem plaga distentus Aras bie & Aegpti sinum perscindit) secemit. Hec principalissimas regiones habet Bithiniam/Galatiam

#### COSMOGRPHIAE

Capadociam/Pamphiliam/Lidiam/Cilicia/Arme nias maiore & minore. Coschiden/Hircaniam/Hia beriam/Albania: et preterea ml'tas quas singilatim enumerare longa mora esset. Ita dicta ab eius nomi

Nuc 30 & he partes sunt latius lustratæ/& alia

nis regina.

quarta pars per America Vesputiu(vt in sequenti bus audietur )inuenta est/qua non video cur quis iure vetet ab Americo inuentore sagacis ingenii vi America ro Amerigen quali Americi terra / siue Americam dicendă: cu & Europa & Asia a mulieribus sua sor tita sint nomina. Eius situ & gentis mores ex bis bi nis Americi nauigationibus quæ sequunt liquide

intelligi datur.

ca

Priscia

Huncin modu terra iam quadripartita cognos scif: et sunt tres prime partes cotinentes/quarta est insula: cu omni quace mari circudata conspiciat. Et licet mare vnu sit queadmodu et ipsa tellus/multis tamen sinibus distinctum / & innumeris repletum insulis varia sibi noia assumit: que et in Cosmogra phiæ tabulis cospiciunt/& Priscianus in tralatione

DUS. Dionisi talibus enumerat versibus.

Circuit Oceani gurges tamen vndich valtus Qui quis vnus sit plurima nomina sumit. Finibus Hesperijs Athlanticus ille vocatur At Boreg qua gens furit Armiaspa sub armis Dicitille piger necno Satur.ide Mortuus est alijs.

## RVDIMENTA

Mare Vnde tamen primo conscendit lumine Titan Eoum: Eoumes vocant ates Indum nomine pontum Indicu: Sed qua deuexus calidu polus excipit Austrum Acthio Aethio pumce simul pelagus Rubruce vocatur picus#& Circuit oceanus sic totu maximus orbem Nominibus varijs celebratus. Perlecat Helperia primus qui porgit vndis Pāphi/ Pamphilcucy latus Lybię prętendit ab oris licum Sic minor est reliquis/maior quem Caspia tellus Suscipit intrante vastis Aquilonis ab vndis Calpiu Nomine Saturni quod Thetis possidet equor Caspius iste sinus simul Hircanusce vocatur At duo qui veniunt Australis ab equore ponti Hirca: Perficu Hic supra currens mare Persicus efficit altum Eregione litus/qua Caspia voluitur vnda Fluctuat ast alter Panchça cy littora pulsat Euxeni contra pelagus protentus in Austro Ordine principiu capiens Athlantis ab vnda Herculeo celebrant quam mete munere Gades. Athlan Cçliferal of tenet stans Athlas monte columnas ticum Est primus vastis qui pontus Hibericus vndis Heraus Dividit Europen Lybia comunis vtrica leum. Hinc atop hinc statue sunt: ambe littora cernunt Hec Lybies hec Europes aduersa tuendo. Gallicus hunc gurges: qui Celtica littora pulsat Gallico Fxcipit:hunc lequitur Liguru cognomine dictus Qua domini rerum terris creuere Latinis. Ad petram leucen Aquilonis ab axe reductus

## COSMOGRAPHIAE

Que freta Sicanie concludit littore curno Insula sed Cyrnos propris pulsatur ab vndis. Intra sardonium pelagus Celtumop refusis Mare Thyrre Inde salis tumidus Tyrrheni voluitur estus Ad partes vergens australes/excipit istum Siculu Sicanie gurges solis deslexus adortus: Qui procul effusus Pachynis tenditur oris Ad Creten summa (que prominet equore) rupems Qua Gortyna potes medijs qua Phestos in aruis Arietis hanc rupem limilantem vertice frontem Pro merito grafi Criu dixere metopon. Hoc mare Gargani concludit lapygis ora: Illincincipiens extenditur Adria vastus: ticum. Ad Boream penetrans pelago solemes cadente Ionius pariter sinus hic perhibetur ab orbe/ Dividit & geminas diverlis partibus oras: Quas tamen extremas cõiungit terminus vnus Ad dextram parté protenditur Illyris alma: Post hanc Dalmatie populoru martia tellus Adleuam Ausonie porrectus continet Isthmos Quetria circundant maria vndicplittore curuo Tyrrhenum/Siculum/necnon limut Adria vastus Finibus at proprijs exceptant lingula ventos Tyrrhenum Zephyro: Siculum sed tundit Austro. Adria succurrens E00 frangitur Euro. At post Sicaniam tractu diffundituralto Ad Syrtim pelagus/Lybicis que cingitur orist

## RVDIMENTA

Maiorem postquam minor excipit equoralonge Acce sinu gemino resonantia littora pulsant Finibus a Siculis Cretçum tenditur equor Marc Adfolis veniens ortus Salmonida poscens Creteu Dicitur Eous qui Crete terminus esse: Post hanc est geminu marevastu fluctibus atris Fluchbus Hismanici Boreg quod nunditur atris. Quod ruit aduersus celle de partibus Arcti Quod prius est Phariu perhibet: hoclittora tagit Phariu Precipitis calu montis: post vnda secunda Sidoniu est pelagus: penetrat qua gurgite pontus. Sidoni Isicus Arctoas ad partes equore vergens. um Non longe rectus: Cilicum nam frangitur oris. Hinc Zephiros poscens veluti draco flectit vndis Quod iuga montiuagus vastat: siluas quatigat Partibus extremis Pamphilia clauditur isto: Atop Chelidonie rupes cinguntur eodem At procul hunc zephyrus finit Patarcide summa: Post hee Arctoas ad partes aspice rursus Açgeum/superat qui fluctibus çquora cumcla: Aegeu Dispersas vasto qui gurgite Cycladas ambit Terminat hucimbros pariter Tenedolop coerces Angusta trahië qua sauce Propontidis vnda Alia: quam supra populis distenditur amplis Ad Notiam partem: qua latus ducitur lsthmos: Threicius sequitur post Bosphorus ostia ponti: bolpho Hoc nullum perhibent terras angustius orbis rus.

## COSMOGRAPHIAE

Simple Esse fretum dirimens: hic sunt Symplegades arctes gades Panditur hic ponti pelagus Titanis ad ortus Quod petit obliquo Boream solemon meatu Hinc atos hinc medio percurrunt equore colles: Vnus qui veniens Asie de parte Carambis Dicitur australi: sed contra finibus alter Prominet Europe hunc criu dixere metopon: Ergo conueniunt aduersi gurgite tanto Distantes quantu ternis transire diebus Eualeat nauis: bimarem sic equore pontum Aspicias similem cornu quod flectitur arcus Neruo curuati distento dextera neruum Allimilat:recto trahitur nam linea ductu Extra quam Boream quo scandit sola Carambis Sed formam cornu geminatis flexibus edit Littus: quod pontum cingit sub parte sinistra Meotis In quam Meotis penetrans Aquilionis ad axes Quam Scythie gentes circundant vndick ripis Et matrem ponti perhibent Meotidis vndam. Scilicet hic ponti vis exit gurgite multo Thau & Cimmeriu torrens per Bosphoron hic vbi Thauru Cimmerij gelidis habitant sub finibus imum: FUS Hec maris est species splendens hec forma pfundi. Est autvt prediximus mare plenum insulis e qui bus maxime & principaliores iuxta Ptholomeum helunt

Taprobana in mari Indico sub equatore

## RVDIMENTA

Albion que & Britannia & Anglia
Sardinia in mari mediterraneo
Candia que & Creta in linu Aegeo
Selandia
Sicilia in mari mediterraneo
Corfyca
Ciprus

Extra Ptholomeum
Madagascar in mari Prasodo
Zamzibar
Iaua in Oceano Indico orientali

Angama

Peuta In oceano Indico

Seula

Zipangri in Oceano oceidentali
He sunt ingentes quas cingit Tethyos vnda
Insule: adhuc alie diuersis partibus orbis.
Diuerse plures sama latuere minores

Auris difficiles nautis vel portubus apte Quaru non facile est mihi promere nomina versu:

Ceteru vt vnius loei ab altero distantiam cogno scere possis poli elevatio tibi cuprimis cossideranda venit. Annotanduigit paveis quod(vt ex superiori bus liquet) viventibus sub paralello equinoctiali vteres polus in horizonte est. Eunti aute ad septe trionem eo magis sublevat polus quanto plus aliquis ab equatore discesserit. Que posi elevatio res

Prilcias nus

## COSMOGRAPHIAE

Prolo . quium.

gionu & locoru ab equatore distantia demostrat. Est em tantus soci tractus ab equatore cuius mer sură scire desideras /quata e eleuatio poli ad zenith eiulde. Ex quibus milliariu numerus facilis cogni tu euadit/du eunde p numeru eleuatiois poli mului plicaueris. Veru ti no sunt secudu Ptholomei sententiă milliaria a circulo eqnostiali ad Arcton vbi ce getiu equales. Nă a primo equatoris gradu vse ad duodecimu/glibet graduu sexaginta Italica mil siaria cotinet que faciut. 15 Germanica. Comuniter ein quatuor Italica pro vno Germamico reputant. Et a. 12. gradu vse ad. 25. quilibet. 59. milliaria facit que sunt Germanis. 19. 2. 2. Atep vt res siat apertior ponemus sormulam sequentem.

Gradus Gradus Millialtal. Mil.Ger

_				
Aequa	1	12	60	15
for.	12	25	59	14 = 1
Tropi	Zſ	30	54	ほた
cus.	30	3/1	50	8 Z = Z
	3/1	41	41	11 4
	41 मीकु बरे	si famine	40	80
	51	51	32	8
	FA	63.	Zg	1
	63	66	<b>Z</b> 6	6-1
Circu.	66	10	Z1	5 4
Arcti.	10	80	6	1 1/2
Polus	80	90		0
Arcti.	A STATE OF THE STA			The Real Property lies and the least lies and the lies and the lies and the least lies and the least lies and the lies and t

XXXVI

## RVDIMENTA

tarcticum con ab equinoctiali volus polos um ane tarcticum con arcticum graduu latitudinis cotinene tia variatur. Quod si scire volueris quot ab vno loco ad alium milliaria sint/perpende diligenter in quibus gradibus latitudinis sint talia loca & quot gradus medient/ deinde vide in formula superiori quot milliaria talis gradus habeat & multiplica nu meru milliariu per numeru medioru graduu/ atce milliariu numerus resultabit: que cu stalica suerint diuidas per quatuor/ & Germanica habebis.

Hec p inductione ad Colmographia dicta sufficiat si te modo amonuerimus prius/nos in depingendis tabulis typi generalis no omnimodo sequutos esse Ptholomeu/presertim circa nous terras vbi in car tis marinis aliter animaduertimus equatorem colti tu i cp Ptholomeus secerit. Et pinde no debet nos statim culpare qui illud ipm notauerint. Consulto em foccimus quod hic Ptholomeu/alibi cartas mas rinas sequuti sumus. Cu & ipse Ptholomeus quins to capite primi libri. Non omnes continentis pars tes ob sue magnitudinis excessum ad ipsius perues nisse noticiam dicat/ et aliquas quemadmodum se habeant ob peregrinantium negligentiam libi mie nus diligenter traditas/alias esse quas aliter atcp ali ter se habere cotingat ob corruptiones & mutatio nes in quibus p parte corruisse cognite sunt. Fuit igit necesse (quod ipse sibi etia faciundu ait)ad nos

Note

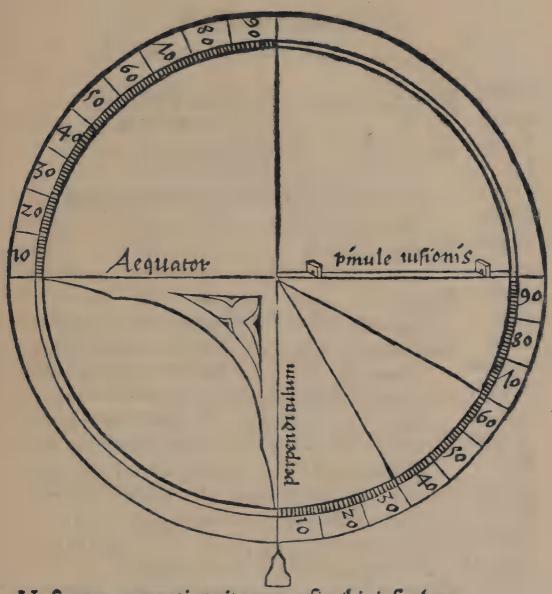
Ptholomeus.

#### **APPENDIX**

uas temporis nostri/tradiciones magis intenderes Et ita quidem temporauimus rem/vt in plano cirs ca nouas terras & alia quepiam Ptholomeu: in sos lido vero quod plano additur descriptione Ameri ci subsequentem sectati sucrimus.

APPENDIX

Annectamus adhuc superioribus anteaco reces ptui canamus eleuationis poli atos iplius zenith ac centri horizontis & climatu quadrante velut parer gon & quodda corolariu. Quamuis si recte cons siderauerimus is quadrans de quo dicemus non sit ad has res impertines. Colmographu em vel maxi me poli supra caput eleuatione/zenith/& terre di mata cognoscere oportet. Format itacs idem quas drans hoc pacto. Divide que cunce circulu in par tes quatuor/ita quod due diametri le in centro ad angulos rectos inter secent: quaru vna (que altera sui parte pinnulas habet)axem poloru mudi/& als tera equatorem significabit. Deinde ea parte circuli que est inter semiaxem pinnulas habentem & alte ram semidiametrum in partes.xc.diuidas/atcp op& polită in totidem/ figalco perpendiculu ad cetrum & paratus erit quadrans. Cuius hicest vsus. Verte eu ita vt p pinnulare foramina polu directe videas & ad quod clima atck in que gradu perpendiculu recident/es ipo climate et eleuationis gradu tua re gio/quinetia zenith at q horizontis centrit existit.



Hactenus exequuti capita proposita/hic ipsas son gin quas expaciationes sequeter introducamus Ve sputij /singulorum factorum exitum circa institutu tradentes.

Finis introductionis

bŋ

## Philefius Vogeligena Lectori

Nilus. Rura papirifero qua florent pinguia Syro Lacus Et faciunt Lune magna fluentalacus Lung. Adextris motes sut lus/Danchis/quocp Mascha lus. Illorum Aethiopes inferiora tenent Dãchis Aphrica consurgit quibus e regionibus aura Masc. Afflans cum Libico feruida regna Notho. Aethio Ex alia populo Vulturnus parte calenti. pes. Indica veloci per freta calle venit. Aphri<sub>e</sub> Subiacet hic equo noctis Taprobana circo cus. Bassacz Prasodo cernituripsa salo Libo 4 Aethiopes extra terra est Bassamce marina nothus Non nota e tabulis o Ptholomee tuis. Vultur Cornigeri Zenith tropici cui cernitur hirci nus. Atch comes multe funditoriplus aque. Tapro Dextrorlum immenso tellus iacet equore cincla bana. Tellus/quam recolit nuda caterua virum Marę Hanc quem clara suum iactat Lusitania regem Praso. Inuenit missa per vada classe maris. Pars as Sed quid plura? situ/gentis morescp reperte phrice i Americi parua mole libellus habet. uenta. Candide syncero voluas hunc pectore lector Ameri Et lege non nasum Rhinocerontis habens ge.

o Telod,

# QVATVOR AMERICI VE SPVILL NAVIGATIONES

Eius qui lub lequente mon delcription ne de vulgari
Gallico in
Latinu
traltu

Decastichon ad lectorem:

Aspicies tenuem quisquis fortasse logiam
Nauigium memorat pagina nostra placens:
Continet inuentas oras/gentescp recenter
Letificare sua que nouitate queant.
Hec erat altilo quo prouincia danda Maroni
Qui daret excelse verba polita rei.
Ille quot ambiuit freta cantat Troius heros:
Sic tua Vesputi vela canenda forent.
Has igitur lectu terras visurus/in illis
Materiam libra:non facientis opus:
Item distichon ad eundem
Cum noua delectent sama testante loquaci
Que recreare queunt hic noua lector habes

o Telod,

加明

Illustrissimo Renato Iherusalem & Sicilie regi/duci Lotho ringie ac Barñ. Ames ricus Vesputius hus mile reuerentia & debita recome dationem:

Fieri pot illustrissime Rex vt tua maiestas mea ista temeritate ducatur in admiratione: propterea quod hasce litteras tam prolixas adte scribere non Subuerear/cum tamen sciam te continuo in ardu/ is confilis & crebris reipublice negociis occupatif simum. Atca existimabor forte non modo presum ptuosus/sed etiam ociosus:id mihi muneris vendis cans/vt res statui tuo minus couenientes non des lectabili sed barbaro prsus stilo (veluti amusus ab humanitatis cultu alienus) ad Fernandu Castilie re gem nominatim scriptas/ad te quoch mittam. Sed ea qua in tuas vtutes habeo cofidentia/& coperta sequentiu reru nece ab antiquis nece neotericis scri ptarum veritas me corã.t.M. fortassis excusabunt: Mouit me imprimis ad scribendum presentiu lator Beneuenutus.M.t.humilis famulus/& amicus me us no ponitendus/qui dum me Lisbone reperiret precatus est vt.t. M. retu per me quatuor profection onibus in diuerlis plagis mundi vilarum/participe facere vellem. Peregi em bis binas nauigationes ad nouas terras inueniendas: quaru duas ex mandato Fernandi inclyti regis Castilie per magnu oceani

finum occidente vilus focci/alteras duas iusiu Mas nuelis Lusitanie regis ad Austru. Itaco me ad id nes goch accinxi speràs q.t.M. me de clientulo R nue mero no excludet: vbi recordabit quo oli mutua ha buerimus inter nos amicicia tepore iuuentutis neg cu gramatice rudimeta imbibentes sub pbata vita & doctrina venerabil'& religiosi fratris de. S. Mar co Fra. Georgii Anthonii Vesputii auunculi mei pariter militaremus. Cuius auunculi vestigia vtis nam sequi potuissem/alius profector vt & ipse Pe trarcha ait) essem & sum. Vtcuck to sit/no me pus det esse qui sum. Semper em in ipsa vitute & rebus studiosis summă habui delectatione. Quodsi tibi he narrationes omnino non placuerint: dicam ficut Plinius ad Mecenate scribit Olim facetijs meis des lectari solebas. Et licet. M.t. sine fine i reipublice ne gochs occupata lit/nihilominus tantu teporis que op suffuraberis/vt has res quis ridiculas(que tame sua nouitate iuuabut) pellegere possis. Habebis em hisce meis l'is post curaru someta & meditameta negocioru no modica delectatione/licut et iple fœ niculus prius sumptis esculentis odore dare & me liore digestione facere asueuit. Enim vero si plus eq plixus fuero/venia peto. Vale.

Inclytissime rex sciat.t.M.quod ad has ipsas res giones mercadi causa primu venerim.Dumos per adrenni reuolutione i eis rebus negociosus essem

b üij

## ANTELOQVIVM

et varias fortune mutatiões animaduerterem /atos vide rem quo pacto caduca & transitoria bona ho minem ad tempus in rote sumo teneret/& deinde. ipsum precipitarent ad imu qui se possidere multa dicere poterat: constitui mecu varijs taliu rerum ca sibus exanclatis istiufmodi negocia dimitte/et mes oru laborum finem in res laudabiliores ac plus stad biles ponere. Ita disposui me ad varias mundi para tes cotemplandas/& diuersas res mirabiles viden das. Ad qua rem se & tepus & locus oportune ob tulit. Ipse em Castilis rex Fernandus tunc quatuor parabat naues ad terras nouas occidentem versus discooperiendas/cuius celsitudo me ad talia inuesti. ganda in ipsam societate elegit. Et soluimus vigelis ma die Maij. Mcccc. xcvij. de portu Caliciæiter no stru per magnu oceani sinu capientes: in qua pro fectione.xvirkconfumauimus menses/multas inue nientes terras sirmas/& insulas pene innumerabis lesvtplurimu habitatas/quaru maiores nostri men tionem nullam sœcerunt. Vnde & ipsos antiquos taliu non habuisse noticià credimus. Et nisi memo » ria me fallat memini me in aliquo legere/quod ma/ re vacuum et sine hominibus esse tenuerint. Cuius opinionis ipse Dantes Poetanoster fuit/vbi duo deuigelimo capite de inferis loquens Vliffis mors të cofingit. Que auté mirabilia viderim/in sequens tium processu. T. M. intelliget.

## PRINCIPIVM

TERRARVM INSVLARVMQ VE VA riarum Descriptio: quarum vestuti no meminerut autores Nuper ab anno incarnati domini. M.ccc xcvi, bis geminis nauigationibus in mari discursis/inuentaru: duabus videlicet in mari occidentali per domin u Fernandum Castilie/reliquisvero duabus in Australi ponto per dominu Manuele Portugal lie serenissimos reges/Americo Vespucio vno ex Naucleris nauiumos prefectis precipuo/subseque tem ad prefatum dominu Fernandum Castillie regem/de huiusmodi terris & insulis edente narratio nem.

NNO DOMINI. M. CCCC. xcvij.xx.mensis Maij die/nos cum iiij.conseruantie nauibus Calicium executes portum/ad insulas (olim fortunatas/nuc vero magnam Canariam dictas) in sine occidentis ha

nizontem earum/se.xxvij.gradibus cu duobus ter tijs/septentrionalis eleuat polus/distates ab hac ciuitate Lisbona in qua coscriptum extitit hoc pre sens opusculum. cc.lxxx.leucis:vento inter mens diem & Lebeccium ventum spirante/cursu primo pertigimus. Vbi(nobis de lignis/aqua/ceteris ne cessaris prouidendo) cosumptis octo sere diebus nus (sacta in primis ad deuin oratione) eleuatis des

hine ventotraditis velis/nauigationem nostra per Ponente incipietes: sumpta vna Lebeccii quarta: tali nauigio transcurrimus vt.xxvij.vix elapsis die bus terre cuida applicaremus: qua firma fore existi mauimus. Distatop Canarie magne ab insulis. M. (vel circiter) leucis: extra id quod in zona torrida habitatu est. Quod ex eo nobis constitit: cp Septe trionale polu extra huiuscemodi telluris horizonte xvi.gradibus se eleuare/magiscp occidentale.lxxv. क magne Canariç isulas gradibus existere cospexi mus: put instrumeta oia mostrabat. Quo i loco (ia ctis de prora achoris) classe nostra/leuca a littore cu media distanté/restare coegimus: nonnullis solutis phalelis armis & gete stipatis/cu quibus ipm vscp ad littus attigimus. Quo oprimu puenimus: gente nudam secundu littus euntem innumeram pereșpi mus. Vnde no paruo affecti fuimus gaudio. Omes em qui nudi incedere conspiciebant: videbant quo op propter nos stupefacti vehementer esse. Ex eo (vt arbitror) op vestitos/alterius op efficiei of foret/ nos esse intuitisunt. Hij postog nos aduenisse cos gnouerunt/omnes in propinquu monte quendam aufugerut: a quo tunc nec nutibus nee signis pacis et amicicievllis/vt ad nos accederet allici potuert.Ir ruente vero interea nocte/nos classem nostra male tuto in loco (vbi nulla marinas aduersus procellas tuta residentia soret) cossidere timentes: couenimus

vna/vt hinc(mane facto)discederemus:exquirere muscoportu quempiam/vbi nostras statione in tu ta collocaremus naues. Qua deliberatiõe arreptal nos vento secundu colle spiranti traditis velis/post क(vilu terram ipsam sequendo/atcp ipso plage in littore/gentes cotinue percipiendo) duos integros nauigauimus dies:locum nauibus satis aptum com perimus. In quo media tantu leuca distantes ab ari da/constitimus:vidimusce tuncinibi innumerabis lem gentiu turbam/quam nos cominus inspicere! & alloqui desiderantes:ipsamet die littori cu cyme bis & nauiculis nostris appropiauimus:necnon & tunc in terram exiuimus/ordine pulchro.xl.circiter viri huiuscemodi gente se tamen a nobis & cosors tio nostro penitus alienam prebete. Ita vt nullis ea modis ad colloquiù comunicationemue nostra alli cere valuerimus: preter exillis paucos/ qs multos post labores ob hoc susceptos/tandem attraximus ad nos dando eis nolas/specula/certos cristallinos alia de similia leuia/ qui tum securi de nobis effecti/ conciliatum nobiscum/necnon de pace & amicis cia tractatum venerunt. Subeunte autem interim nocte/nos ab illis nosmet expedientes (relictis eis) nostras regressis sumus ad naues. Postea vero suba sequentis summo diluculo diei/insinitam in littore virorum & mulierum partiulos suos secum ve > Chantium gentem rurlum conspeximus cognouis

delerre totam /qualem infra suo socum dicet. Quo rum cpplures cpplurimum terre appropiauimus se met in equor projeientes (cum maximi natatores existent) quantus est baliste iactus nobis venerunt natantes obuiam/susceperuter nos humaniter: ater ea securitate & considentia seipsos inter nos commiscuerunt acsi nobiscu diutius antea couenissent et une per parum obsectati suimus. De quorum mos ribus (quales eos habere vidimus )hic/quando qui dem se comoditas offert/interdum etiam interseriemus.

De moribus ac eorum viuendi modis.

VANTVM AD VITAM/EORVM

q comores omnes: tam mares con liter ves di penitus incedunt tectis non aliter ves rendis com ex vtero pdierunt. Hi mediocris ex istentes stature multum bene proporcionati sunt quoru caro ad rufedine (veluti leonu pili) vestimetis operti mearet albi (credo) taco nos exetaret. Nullos habet in corpe pilos pterco crines con corpe pilos pterco crines con corpe pilos pterco crines corpe pilos pterco crines con corpe pilos pterco crines corpe c

peeros nigreleeteles gerunt/& preserim sæmine que propterea sut tali longo nigro co crine decore. Vultu non multu speciosi funt qm latas sacies cars tarns adlimilatas habet/nullos libi sinunt in supers cilns oculorumue palpebris ac corpore toto (crinic bus demptis)excrescere villos/ob id quod habitos in corpore pilos quid bestiale brutalecp reputant. Omnes tam viri of mulicres siue meando siue cure rendo leues admodum atcp veloces existutique (ve frequenter experti fuimus)in fe etiam mulicres vna aut duas geurrere leucas mhiliputat/& inhoenos christicolas multu precellunt. Mirabiliter ac vitra Ep sit credibile natant: multo quocp melius foemine क masculi quod frequenti experimento didicimus cum iplas etia foeminas omni prorlus sustentamis ne deficientes duas in equore leucas pernatare per speximus. Arma eorum arcus sunt & sagitte/quas multu subtiliter fabricare norunt. Ferro metallisque alijs carent: sed pro ferro bestiarum pisciumue den tibus suas sagittas armant/quas ctiam(vt fortiores existant) vna quoch sepe preurunt. Sagittarij suni certissimi. Itave quicquid voluerint iaculis suis seri ant:nonnulliles in locis mulieres quoes optime las gittatrices extant. Alia etiam arma habet velutilan ceas præacutasue sudes/necno & clauas capita mi rifice laborata habentes. Pugnare potissimu assue" ti sunt aduersus suos alienigene lingue confines co

tra quos nullis parcendo (nisi vt eos ad acriora tor menta reservent) multum crudeliter dimicat. Et cu in prelium properant suas secum vxores (non bels ligeraturas/sed eorum post eos necessaria perlatus ras) ducut/ob id co sola ex eis mulier tergo sibi plus imponere possit/& deinde.xxx.xl.ve leucis subue here(prout ipsi sepe vidimus) & vir(etiam validus) a terra leuare queat. Nulla belli capita nullosue pre fectos habent/quinymmo(cũ eorum quilibet ex se dominus extet) nullo servato ordine meant. Nulla regnandi dominiuue suum extendendi aut alterius inordinate cupiditatis gratia pugnant sed veterem solum ob inimiciciam in Illis ab antiquo insitam: cu iusquidem inimicicie causam interrogati nullă alia indicant nili vt luorum mortes vendicent antecels forum. Hec gens fua in libertateviuens nullicp obe diens nec regem nec dominu habet. Ad preliu aute se potissimum animant & accingunt cum eoru ho stes ex eis quempiam aut captiuum detinent aut in teremerunt. Tuc em eiusdem captiui interemptiue consanguineus senior quisco exurgens exit cito in plateas & vicos passim clamitans inuitans omes & suadens vt cum eo in presium consanguinei sui necem vindicaturi properent: qui omnes copassio ne moti mox ad pugnam se accingunt atos repens te in suos inimicos irruunt. Nulla iura/nullamue iu sticiam servant : malefactores suos nequaquam pu

niunt/qumymmo nec parentes ipli paruulos suos edocent aut corripiunt. Mirabiliter eos inter sele conquestionari nonnunci vidimus. Simplices in lo quela se ostentant, verum callidi multum atch astus ti sunt. Perraro / & summissa voce loquutur / eisde quibus viimur accentibus vientes. Suas vipluria mum voces inter dentes & labra formantes:alijs vtuntur vocabulis conos. Horu plurime sunt ydio matu varietates quonia a centenario leucarum in centenariu diuerlitatem linguarum se mutuo nulla. tenus intelligentiu reperimus. Comessandi modu valde barbarum retinent:nec quidem notatis man ducant horis/sed siue nocte siue die quotiens eden di libido suadet. Solo manducantes accumbunt/86 nulla mantilia nullaue gausapa (cu lineamentis pan nisce alijs careant) habent. Epulas suas atce cibaria in vascula terrea que ipsimet cosingunt/aut in mes dias cucurbitarum testas ponunt. In retiaculis quis buldam magnis ex bombice factis & in aere suspē sis dormitant: qui modus ozuis insolitus & asperis or fortassis videri que at /ego nihilominus tale dor mitandi modum suauem plurimum iudico. Etenim cum in eildem eoru retiaculis mihi plerumca dors mitasse contigerit/in illis mihimetipsi melius of in tapetibus quas habebamus esse persensi. Corpore valde mudi sut et expoliti/ex eo cp seipos frequtiss

me lauant. Et cum egestum ire (quod salua dixerim reuerentia) coacti funt/omni conamine nituni vt nemine perspici possint: qui quidem in hoc quanto honesti funt tanto in dimittenda vrina se in muns dos inuerecundoscos tam mares of sceming prebet! cum siquidem illos nobiscum soquentes & coram politos suam impudicissime vrinam sepius emins xisse perspexerimus. Nulla lege/nullu legitimu tho ri fœdus i suis conubijs obseruat/quinymmo quot quot mulieres quisco cocupiscit/tot habere & dein deillas quandocucs volet (ablos hoc quid pro iniu ria aut opprobrio habeant) repudiare potest. Et in hac re vtich tam viri ch mulieres eade libertate frus untur. Zolosi parū/libidinosi vero plurimū extāt: magilos foemine of malculi: quarum artificia vt infa tiabili sue fatisfaciant libidini hic honestatis gratia subticenda censuimus. Es ipse in generandis paruu lis socunde admodu sunt : nece du gravide effecte sunt penas aut labores euitant. Leuissimo miniocy dolore pariunt. Ita vt in crastinum alacres sanatect vbick ambulent: presertince post partuin flumen quodpiam sele ablutu vadunt/tumcp sane munda tecs inde(veluti piscis)apparent. Crudelitati aut ac odio maligno adeo dedite sut/vt si illas sui forsitan exacerbauerint viri/subito certu quodda efficiunt maleficiu: cu q pingeti ira pprios fetus i ppriisvte ris necât abortiutch deinde: cuius rei occalioe ifiniti

rorum paruuli peteant. Venusto & eleganti, ppor tione copacto corpore sunt lta ve in illis quitqua desorme nullo inspici modo possit Et quauis dis nude ambulent inter fæmina tamen earum/ pudis bunda sichoneste repostasunt vt nullatenus vide ri queant preterquam regiuncula illa anterior qua verccundiore vocabulo pectulculum ymu vocas mus quod & in illis vtics non aliter of honeste nas tura ipsa videndum reliquit Sed & hoc nec quide curant qui vt paucis expediam no magis in suoru visione pudendoru mouent of nos in oris nostri/ aut vultus ostententatiõe. Admiranda per valde rem ducerent muliere in eis mammillas pulpas ve laxas aut ventrem rugatu ob nimiu partu habente cum omnes equæintegre ac solide post partu sem perappareant ac si nuch peperissent. Hee quidein se nostri cupientissimas esse monstrabant. Nemis nem in hac gente legem aliquam observare vidia mus nec quidem iudei aut mauri nuncupari solis de queunt cum ipsis gentilibus aut paganis mule to deteriores sint Etenim no persensimus op facrifi cia vlla faciant aut co loca orationisue domos alio quas habeant.horum vita (que omnino voluptue osa est) Epy cuream existimo illorum habitationes singulis ipsis sunt communes/lpsecp illorum dos mus campanarum instar costructe sunt firmiter ex magnis arboribus solidate palmaru solijs desuper

contecte & aduerlus ventos & tempestates tutiss me nonullist in locis tam magne vt in illarii vnica sexcentas esse personas inuenerimus. Inter quas octo populolissimas esse coperimus sic ve in eis els sent habitarentes pariter animarii dece milia. Octe nio quolibet aut septennio suas sedes habitationes ue transferut/qui eius rei causam interrogati natus rale responsum dederut dicentes op phebi veheme tis estus occasione hoc faceret ob id co ex illore lon giore in eodem loco relidentia aer infectus corrus ptuscp redderetur que res in eoru corporibus vari 23 causaret egritudines quequide eoru ratio no ma le sumpta nobis visa est Eorum diuitie sut variore coloru auium plume aut in modu lapillorum illor quos vulgariter pater noster vocitamus lamine si+ ue calculi quos ex pilcium offibus lapillis ve viridi bus aut candidis faciunt & hos ornatus gratia sibi ad genas labia vel aures suspendunt. Alia quo of si milia futilia & leuia pro divitis habet que nos omi no parui pendebamus. Comutatioibus aut merci monijs in vendendo aut emendo nullis vtunt qui bus satis est quod natura sponte sua propinat Au rum vniones iocalia ceteracp limilia que in hac Eus ropa pro divitijs habemus nihil extimant îmo pes nitus spernunt nec habere eurant. In dando sic nas turaliter iberalissimi sunt vt nihil quod ab eis exa petatur abnegent, Et quemadmodum in dando lis

berales sunt sic in petendo & accipiendo cupidissi mi posto se cuiquam amicos exhibuerint. Maxie mum potissimum camicicie sue signum in hoc per hibent op tam vxores of filias proprias amicis suis pro libito habendas offerunt in qua re parens vter e se longe honoratu in existimat cum nată eius & si virginem ad concubitu suum quispiam dignatur & abducit & in hoc suam inter se amiciam potissis mum cociliant. Varns in eorz decessu multics mos dis exequns viuntur. Porro suos nonulli desuctos in humo cum aqua sepeliut & inhumant illis ad ca put victualia ponentes quibus eos posse vesci & alimentari putant nullum deinde ppter es alium planctum aut alias cerimonias efficientes. Aln qui busdam in locis barbarissimo atcz inhumanissimo sepeliendi vtuntur modo. Quippe cu eorum ques piam mortis momento proximum autumant illu eius propinquiores in siluam ingentem quamdam deserunt vbi eu in bombiceis retiaculis illis in quis bus dormitant impolitum & recubante ad duas arbores in aera suspendunt ac postmodum ductis circa eu sic suspensumvna tota die chorcis irruente îterim nocte ei aqua victucp aliu ex q quatuor aut circif dies viuere qut ad caput apponut & deinde sic inibi solo pendete relicto ad suas habitatiões re deut quibus ita pactis si isde egrotus postea madu en & bibat ac inde ad coualescentiam sanitatemes

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redeat & ad habitatione ppriam remeet illu eius affines ac propinqui/cu maximis suscipiut cerimo nijs At perpanci suut qui ta grande pretereant pe riculu cu eos ibidem nemo postea visitet qui si tue inibi forsan decedut nulla aliam habent postea ses pultura. Alios quocp complures barbaros habent ritus quos euitande plixitatis hicomitimus gras tia. Diuerlis varifle medicamibus in suis morbis & egritudinibus viunt que sic = nostris discrepant & discoueniunt vt miraremur haud paru qualiter inde quis euadere posset Nempe vt frequenti didi cimus experientia cu eoru quempia febricitare co tigerit hora qua febris eum asperius inquietat ipm in frigentissimă aqua immergut & balneant poste madumes per duas horas circa ignem validu(do nec plurimum calescat) currere & recurrere cogut & postremo ad dormiendum deferunt quoquis dem medicamento coplures coru sanitati restitui vidimus. Dietis etia(quibus tribus quatuor ve die bus abscpcibo & potu perlistunt) frequentissimis vtunt. Sanguine quo & sibi persepe cominuut no in brachijs (salua ala) sed in lumbis & tibiarū pule pis. Seiplos etiam ad vomitu cu certis herbis quas in ore deferunt medicaminis gratia plerucp prouo cant & multis alijs remedijs antidotisch vtunt que longum dinumerare foret Multo sanguine multos of flegmatico humore habundant cibarioru suoru

occaliõe q ex radicibus/fruchbus/herbis/varifle piscibus faciunt. Omni farris granorucp aliorum se mine carent Comunis vero eorum pastus siue vis ctus arborea radix quedam est qua in farrina satis bona cominuunt & hanc radicem quidam eorum iucha alij chambi alij vero ygnami vocitant. Alijs rarnibus/pręter@hominū per raro velcunt in qui bulquidem hominu carnibus vorandis sic in huma ni sunt & inmansueti vt in hoc omne feralem ome nem ve bestiale modu superent. omnes em hostes suos quos aut perimunt aut captos detinct tam vi ros of fæminas indistincte cum ea feritate deglutis unt vt nihil ferum/nihil ve brutu magis dici vel in spici queat quosquide sic eferos imanes fore / va rijs in locis mihi frequentius contigit alpexisse mis rantibus illis quinimicos nostros sic quoco nequas quam manducaremus. Et hoc pro certo maiestas vestra regia teneat Eorz cosuetudines (quas pluris mas habent) sic barbare sunt vt hic nunc sufficiens ter satis enarrari no valeat. Et qm in meis hisce bis geminis nauigatoibus/tam varia diuerlace ac tam a nostris rebus & modis differetia perspexi Idcira co libellu quépiam (que quattuor dietas fine qua tuor nauigationes appello) colcribere paraui cons scriplics in quo maiorem reru a me vilaru parte di stincte satis/iuxta ingenioli mei tenuitate /collegi. Verutamen non adhuc publicaui. In illo vero qui

omia particulariter magis ac lingillatim tangenar idcirco vniuerlalia hic folumodo, plequens ad nacuigationem nostra priorem perficienda a qua pau

lisper digressus fueram iam redeo.

INHOCNAVIGUNOSTRIPRIMORdio notabil'comoditatis res/no vidimulideirco(vt opi nor) con lingua no capiebamus preterco nonule là auri denotantia/quod nonulla indicia in tellure il la esse monstrabant. Heccine yo tellus quo ad sui situ positionece tam bona est vt vix melior queat. Cocordauimus aut vt illa derelinquetes logius nas uigatione pouceremus. Qua vnanimitate susceps ta/nos dehinc arida ipam collateraliter semp secta tes necno gyros metos scalasos plures circueuntes & interim cu mitis varificp locore illoru incolis co Terentia habentes /tande certos post aliquot dies portui cuidă applicuimus/in quo nos grandi a peri culo altitono spiritui coplacuit eripere. Huius em modi portu Eprimu introgressi suimus populatio ne vna eon hoc est pagu aut villa superaquas (vt Venetie)polită coperimus/in qua ingetes.xx.edes aut circiter erat in modu campanaru vt pretactum est effecte atop sup ligneis vallis solidis & fortibus sirmiter fundate/ pre quaru porticibus leuaticii po tes portecti erant per quos ab altera ad altera tam क per copactissimam strata transitus erat. Igit hus iulmodi populatois incole Eprimu nos intuitu ita

sunt magno propter nos timore affecti sunt/thobs rem suos confestim pontes omnes corra nos eleua uerunt & sese deinde in suis domibus abdiderunt Quã rem pspectantibus nobis & haud parz admi rantibus ecce duodecim eoru lintres v? circiter/ sin gulas ex solo arboris caudice cauatas (quo nauium genere vtunt) ad nos interim per equor aduentare conspeximus/quore naucleri effigiem nostra habi tuck mirantes ac sele circunos vndick recumseren res nos eminus aspiciebat. Quos nos quoce ex ad uerso prospicientes/plurima eis amicicie signa des dimus/quibus eos/vt ad nos intrepidi accederent/ exhortabamur/quod tñ efficere coteplerunt. Quã rem nobis pcipientibus mox ad eos remigare ince pimus/ qui nequa o nos prestolati sut quinymmo oms cofestim in terram sugert datis nobis interim fignis vt illos paulisper expectaremus. Ipi em exte plo reuersuri sorent. Tumcs in monte quenda ppe rauert/a q eductis bis octo iuuencu? & i lintribus fuis pfatis vna lecu assuptis mox vlus nos regrels I sut. Et post hec ex iuu ecul i pis quor i singul na uiu nram poluert/que facie di modu noshaud pare admirati tuc fuimus/put vra satis ppedere pt mas iestas. Ceterucp cu lintribus suis pmissis int nos na nelon neal comixti sut & nobiscu sic pacifice locuti fut vt illos amicos nãos fidelissimos esse reputares mus.Intea yo ecce qo ex domibul core pmeoratis c in

gens non modica per mare natitans aduentare ces pit quibus lta aduenientibus & nauibus nris iam appropinquare incipientibus necth proinde mali quitos adhuc suspicaremur rursu ad earude domo ru con fores/vetulas nonullas cospeximus que im maniter vociserantes & ccelu magnis clamoribus implentes sibimet/in magnę anxietatis indiciu pro prios euellebat capillos que res magna mali suspes ctionem nobis tunc attulit Tumop subito sactu est vt iuuencule ille quas in niis impoluerant nauibus mox i mare plilerent ac illi qui in lintribus crant le se a nobis elongantes mox contra nos arcus suos intenderent nosch durissime sagittarent. Qui vo a domibus per mare natantes adueniebant singuli latentes in vndis lanceas ferebant ex quibus coru proditione cognovimus Et tum no solum nosmet magnanimiter defendere veru etiam illos grauiter offendere incepimus Ita vt plures corum sasellos cum strage eoru no parua perfregerimus & penis mi in ponto submerserimus ppter quod reliquis faselis suis cu damno coru maximo relictis per mas re natantes omnes in terram fugerunt inter emptis ex eis.xx.vel circiter vulneratis yo pluribus & a nostris quice dumtaxat lesis qui omnes ex dei gra tia incolumitati restituti sut Comprehedimus aute et tune en pretactis iuuenculis duas & viros mes ac dehine domos core visitauimus & inillas introi

wimus vere i eis quitqua (nisi vetulas duas et egro? tantem viru vnicu)non inuenimus.qualquide eos rum domos igni succendere no voluimus ob id co colcientic scrupulu hocipsum esse formidabamus Post hec antem ad naues nostras cu pretactis car ptiuis quincy remeauimus & eolde captiuos/pres tert iuuenculas iplas/in compedibus ferreis alliga uimus Eede yo iuuencule captiuorect virore vnus peruenienti nocte a nobis subtilissime euascrut his itacs peractis. Sequenti die concordauimus vt res licto portu illo longius secundu collem procedere mus percursisce.lxxx.fere leucis gentem alia quam dam coperimus lingua & conversatione penitus priore diversam Covenimus vt classem inibi no stram anchoraremus & deinde in terram ipam/cu nauiculis nostris accederemus. Vidimus autē tunc ad littus in plaga gentiū turbam.iii. M. personarū vel circiter existere qui cu nos appropriare persen serunt nequa mos prestolati sunt quinymmo cun ctis que habebant relictis omnes in siluas & nemo ra diffugerut Tum vero in terra prolilietes/& via vnamin siluas tendente / optus est baliste iactus /p ambulantes mox tentoria plura inuenimus que ibi dem ad piscandu gens illa tetenderat & in illis cos piosos ad de coquendas epulas suas ignes accende rat/acpfecto bestias ac pses variares specieru pisces iam allabat Vidimus aute inibi certu allari animal

quod erat (demptis alis quibus carebat) serpenti si millimu tames brutu acsiluestre apparebat vt eius no modicu miraremur feritate. Nobis vero per ea dem tentoria longius pgredientibus plurimos hu iuscemodiserpetes viuos inuenimus qui ligatis pe dibus ora quocp finibus ligata ne eade aperire pof sent habebat/put de canibus aut feris alijs ne mor dere queant effici solet. Aspectu tam seru eade pre seferut animalia vt nos illa venenosa putantes nul latenus auderemus cotingere. Capreolis in magni rudine brachio vero cu medio in longitudine equa lia sunt. Pedes longos materiales p multu ac fortis bus vngulis armatos necnon & discolore pelle dis uerlissimă habet/rostrucă ac facie veri serpetis ges stant/a quore naribus vscp ad extremã caudam se: ta quedă per tergu sic protendit vt animalia illa ve ros serpentes elle iudicaremus/& nihilominus eis gens plata velcit. Pane luu ges eadem ex pilcibus quos in mari pilcant efficiut. Primu em pilciculos ipsos inferuents aqua aliquantisper excoquut. Des inde vero contundunt & copistant & in panes co glutinant q's super prunas insuper torret & tande inde postea manducat/hosquide panes phates que bonos esse repimus. Alia quocp comita esculeta cia bariacp tam in fructibus op in varijs radicibus reti! nent q longu enumerare foret. Cum aut a siluis ad qs aufugerat no rediret nihil de rebus contevt ame

plius de nobis securi sieret) auferre voluinus quis nymmo in eisde eort tentorijs omsta de reculis no stris in locis q perpedere possent derelinquetes ad naues nras sub nocté repedauimus. Sequenti vo die cu'ex oriri titan inciperet infinită in littore gen tê existere prepimus ad és in terra tuc accessimus. Et quis se nëi timidos ostederet seipos th îter nos permiscuerut & nobiscu practicare ac couersari cu securitate ceperut amicos nãos se plurimu fore per simulantes/insinuantescep illic habitatiões eor non esse/verz cp piscandi gra aduenerat. Et idcirco rogi tates vt ad eor pagos cu eis accederemus ipi etem nos tamés amicos recipere vellent et hãc quide de nobis coccperat amicicia captiuore duore illore (de tenebamus )occasiõe/qui eorz inimici erat. Visa at cor magna rogadi importunitate cocordauimus. xxinj.ex nobis cu ill'i bono appatu cu stabili mente (si cogeret necessitas)oes strenue mori Cu itaco no biscu per tres extitissent dies & tres cu eis plaga terrace illa excessissemus leucas/ad paguvnu noue dumtaxat domore venimus vbi cu tot tames bats baris cerimonijs ab eis suscepti suimus vt scribete penna novaleat/vtputa cu choreis & caticis acpla Ctibus hilaritate & leticia mixtis/necno cu fercul ci barijses mitis. Et ibide nocte illa requieuimus vbi pprias vxores suas nobis cu oi pdigalitate obtule rut/q quide nos sic iportue solicitabat vt vix eisde

relistere sufficeremus poster aut illic nocte vna cu media die perstitimus/inges ad mirabisco ppss abs ce cuctation stuporece ad not inspiciedos aduenit que leniores nos que rogabat vt lecu ad alios com pagos (qui lògius in terra erat) comearemus quod et quide eis anuimus Hic dictu facile no e cotos ipi nobis îpêdert honores Fuimus aut apud comstas eore populatões/per îtegros noue dies cu ipis cun tes ob quod nobis nri q in nauibus remaserat retu lert soch se ideirco plerug i anxietate timoreca no minio extitisse. Nobis aut bis noue leucis aut circi ter i eoru terra existêtibus ad naues nras repedare proposuimus Et quide nostro in regressu tam co. piosa ex eis viroru ac mulieru multitudo accumit qui nos vscp'ad mare prosecuti sunt/vt hoc ipsum mirabile foret. Cumo noshi quempia ex itinere sa eigatu iri cotingeret ipli nos subleuabat & in suis retiaculis i quibus dormitat studiosissime subuehe bant.În transitu quo 😝 fluminu que apud cos pluri ma sunt & maxima/sic nos cum suis artificijs secu re transmittebăt ve nulla vsos pericula pertimesces rimus. Plurimi etia eoru nos comitabant reru lua. rū onusti/quas nobis/dederāt illas in retiaculis illis quibus dormiut vectantes plumaria videlicet pre ditia necno arcus multos/sagittas multas/ac infi nitos diversoru colorum plitacos Alij quoco come plures supellectilem sua tota ferentes animalia etia

fortunatuse socicemos putabat qui in transmeane dis aquis nos in collo dorso vesuo trasuectare pog terat Quaprimu aute ad mare pertigimus & fales los nostros conscendere voluimus in ipso saselotu nostroru ascensu tanta ipsorum nos comitantiu et nobiscu ascendere cocertantiu ac naues nostras vi dere cocupiscentiu pressura suit vt nostri ldem fale li pene pre pondere submergerent/in ipsis aute no stris eisdem faselis recepimns ex eis nobiscu quot quot potuimus ac eos ad naues nostras vsq pere duximus Tanti etiam illoru per mare natantes & vna nos cocomitantes aduenerut vt tot aduentas re molestiuscule ferremus cu siquide plures mile le in nostras naues licet nudi & inermes introivis sent/apparatum artificiucy nostru necno & naviū ipsaru magnitudinem mirantes Ast tunc quiddam risu dignu accidit Nam cu machinant/tormentoru ca bellicoru nostroru queda exonerare cocuperes mus et ppter hoc(impolito igne)machine iple hor ridissime tenuissent pars illoru maxima (audito hu inscemodi tonitruo)sese in mare natitans percipie tanit veluti solite sunt rane in ripa sidetes que si sor tassis tumultuosum quitqua audiunt sele in psuns dum luti latitature iminergut /quemadinodum & gens illa tunc secerunt illique eoru qui ad naues aux stri nosmet rephenderemus. Veruillos mon secue

ros esse fecimus nec amplius stupidos esse permiss mus infinuantes eis cp cu talibus armis hostes nos stros perimeremus. Postopaut illos illa tota die in nauibus nî is sestiue tractauimus ipsos a nobis abi turos esse monuimus qui sequti nocte nos ab hinc abscedere cupiebamus. Quo audito/ipi cu summa amicicia beneuolentiacp mox a nobis egressi sunt. In hac gente eoruch terra comultos core ritus vidi cognouice in quibus hic diutius imorari no cupio Cum postea nosse vestra queat maiestas qualiter in quauis nauigationu hare mearu magis admirans da annotatuce digniora coscripserim ac in libellum vnu stilo geographico collegerem que libellu quas tuor dietas intitulaui & in quo singula particularit & minutim notaui sed hactenus a me non emisi ob id co illu adhuc reuisere collationareco mihi necesse est Terra illa gente multa populosa est ac multis di uerlisce animalibus & nostris paucissime similibus vndice densissima. Deptis leonibus vrsis ceruis sui bus capreolisce & dâmis que & quide deformitas tem quada a nostris retinent equis ac mulis asinis. cp & canibus acomni minuto pecore(vt suntoues & similia)necno & vaccinis armetis penitus caret/ verutamen alijs of plurimis varioru generu anima libus (que no facile dixerim) habundantes sunt sed tamen omnia siluestria sunt quibus in suis agendis minie vtuni. Quid plura: Hij tot tantilop diversos

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rum modoru ac coloru pennaruci alitibus fecudi sunt vt id sit visu enarratucp mirabile regio siquis dem illa multum amena fructiferace est/siluis ac ne moribus maximis plena quæ omni tempore viret nec eorum vmck folia fluunt. Fructus etiam innua merabiles & nostris omnino dissimiles habent hec cine tellus in torrida zona sita est directe sub paras lello qui cancri tropicu describit vn polus orizons tis eiulde le. xxiij. gradibus eleuat in fine climatis le cundi Nobis aut inibi existentibus nos coteplatu populus multus aduenit effigiem albedinemos no stram mirantes quibus vnde veniremus sciscitanti bus e cœlo inuisende terre gratia nos descendisse respondimus quod & vtich ipsi credebat in hac tel lure baptisteria fontesue sacros plutes instituimus in quibus eorum infiniti seipsos baptisari fecerunt se eoru lingua charaibi hoc est magnesapientie vis ros vocantes Et provincia ipsa Parias ab ipsis nun cupata est. Postea aut portu illum terramos deres linquêtes ac secundu colle transnauigantes & ter ram ipsam visu semper sequentes. Dccc.lxx.leucas a portu illo percurrimus facientes gyros circuitula cp interim multos & cum gentibus multis conuer santes practicantes cp. Vbi in pleriscp locis aux (led no in grandi copia) emimus cu nobis terras illas re perire & si i eis aure foret tuc sufficeret cognoscere Et quia tunc. xin, iam mensibus in nauigatione nra

perstiteramus et naualia nfa apparatusce nostri to ti penç consumpti erant homines ca labore perfras En Comunem inter nos de restaurandis naviculis nostris que aqua vndice recipiebant & repetunda hyspania iniuimus cocordiam in qua dum persiste remus vnanimitate prope portu vnu eramus totis us orbis optimu in quem cu nauibus nostris intro euntes gêtem ibide infinită inuenimus que nos cu magna suscepit amicicia in terra aute illa nauicula vnā cum reliquis nauiculis nostris ac dolijs nouam fabricauimus ipsasce machinas nostras ac tormen ta bellica que in aquis vndi cp pene peribant in ters ram suscepimus nostrasce naues ab eis exonerauis mus & post hec in terra traximus et resecimus cor reximulcy & penitus reparauimus. In quare eiuls dem telluris incole no paruu nobis adiuuamen exs hibuere quinymmo nobis de suis victualibus ex affectulargiti sponte sua suere propter quod inibi per pauca de nostris cosumpsimus quaquide rem ingenti pro beneplacito duximus cum fatis tenuia tunc teneremus cum quibus hyspaniam nostram no (nisi indigentes) repetere potui semus. In portu autillo.xxxvij.diebus perstitimus frequentius ad populationes eoru cum eis euntes vbi finguli nos bis non paruum exhibebant honorem. No bis aire portum eundem exire & nauigatione nostra refles ctere concupis centibus conquesti sunt illi gentem

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quamda valde seroce & eis infestam existere/ qui certo anni tempore per viam maris in ipsam eoru terra per insidias ingressi nunc pditorie/nuc p vina. Emultos eoru interimerent manducarentes deins de. Alios vo in sua terra suas domos captinatos ducerent/contra quos ipi se vix desendere possent nobis insinuantes gente illam quamda inhabitare insulă que i mari leucis centu aut circiter erat. Quă remipli nobis cu tanto affectu ac querimonia com memorauerut vr eis ex condolentia magna credes remus/pmitteremusque vt de tantis eos vindicares mus iniurns/ppter quod illi lœtantes no paru effe chi/sele nobiscum venturos sponte sua propria ob tulerut/quod plures ob causas acceptare recusauie mus demptis septem quos data conditione recepi mus vt soli in suis lintribus i propriaremearet/qm reducendoru coru cura suscipere nequaqua intens debamus cui conditioni ipli opgratanter acquieue rut. Et ita illos amicos nostros plurimu effectos de relinquetes ab eis abcessimus. Restauratis aut repa ratisce naualibus nostris/septé pergyru maris(ven 10 int grecu & leuante nos ducente) nauigauimus dies Post quos plurimis obuiauimus insulis quarti quide alie habitate alie so deserte erat. Haru igitur vni tande appropinquates & naues nostras inibi sistere facientes/vidimus ibidem Amaximu gens tis aceruu qui insulam illa lty nuncuparent quibus.

prospectis & nauiculis phaselisch nostris viris vali dis & machinis tribus stipatis terre eidem vicinius appropiquates.iii.C.viros cu mulieribus cumltis iuxta littus esse conspeximus qui vt /de prioribus. habitu est oms nudi meantes/corpe strenuo erat! necno bellicosi plurimu validica apparebant/cum siquide oms armis suis arcubus videlicet & sagits tis lanceiles armati esset/quorum quoes coplures parmas etia qdrataue scuta gerebat qbus sic opor tune sele pmuniebat vt eos i iaculadis fagittis suis in aliquo no impediret. Cumce cu phaselis nostris terre ipli optus est lagitte volatus appropiassemus oms citius in mare plilierunt & infinitis emissis sas gittis sele contra nos strenue(ne in terra descendes re possemus) defendere occepert. Oms vero p cor pus diuerlis coloribus depicti & varijs volucrū pē nis ornati erant/quos hn qui nobilcu venerat aspis cientes illos ad preliandu paratos esse quotiescuns B sic picti aut auium plumis ornati sunt nobis insi nuerut. Intantu aut introitu terre nobis impediert vt saxiuomas machinas nostras in eos coachi fueri mus emittere/quare audito tumultu impetucpvilo necno ex eis pleritos in terra mortuis decidisse pro spectis/oms interra sele receperunt. Tumch facto inter nos consilio. xln. de nobis in terra post eos co cordauimus exilire & aduerlus eos magno animo

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pugnare quod & quide fecimus. Na tu aduersum illos in terram cu armis nostris prosiluimus / cotra cp illi sic sele nobis opposuert vt duabus ferme ho ris cotinuu inuice gesserimus bellu/pter id co de eis magna faceremus victoriam demptis eoru perpau cis quos balistarij colubrinarijos nostri suis interes merunt telis quod idcirco ita effectu e quia seipsos a nobis ac lăceis ensibuscp nostris subtiliter subtras hebät. Verutamen tanta demu in eos incurrimus violentia vt illos cu glados mucronibusco nostris cominus attingeremus. Quosquide cu plensissent omes in fugă per siluas & nemora conuersi sunt/ac nos campi victores (interfectis ex eis vulneratifc plurimis) deseruerunt. Hos aut pro die illa longio/ re fuga nequaqua insequi voluimus/ob id q fatiz gati nimiu tuc essemus quinpotius ad naues nras cum tanta septem illorum que nobiscum venerant remeauimus læticia vt tantum in se gaudium vix iplisuscipe possent. Sequeti aut aductate die vidi mus per insulam ipsam copiosam gentium appro pinquare cateruam cornibus instrumentisce alijs quibus in bellis vtuntur buccinantem/qui & quos que depicti omnes ac varns volucru plumis ornas ti erant.lta vt iutueri mirabile foret quibus perces ptis ex inito rursu inf nos deliberauimus cosilio vt si gens hec nobis inimicicias pararet/nosmet oms

în vnu cogregaremus videremusco mutuo semper acinterim satageremus ve amicos nobis illos effis ceremus /quibus amicicia nostrano recipientibus allos quali hostes tractaremus/ac quotquot ex eis coprehendere valeremus seruos nostros ac manci pia perpetua faceremus/& tunc armatiores vt po tuimus circa plaga ipsam i gyrū nos collegimus.ll/ livero (vi puto pre machinaru nostraru stupore) nos in terram tunc minime phibuerunt exilere. Ex iuimus igitur in eos in terram quadrifariam diuisi. lvij. viri limguli decurione suu sequentes/& cu eis longu manuale gessimus bellum. Verutamen post diuturnam pugnā plurimuck certamen necno ins teremptos ex eis multos/omnes in fuga coegimus & ad vlcp populatione corum vnam prolecuti fui mus vbi comprehensis ex eis.xxv.captiuis eande corum populatione igni cobussimus & insuper ad naues nostras cu ipsis.xxv.captiuis repedauimus interfectis ex eadem gente vulneratifce plurimis/ ex nris aut interepto dutaxat uno sed vulneratis. xxñ.qui o es ex dei adiutorio sanitate recuperaues rut. Ceteru aut recurlu i patria p nos deliberato or dinatocs viri septem illi qui nobiscu illuc venerant quoru quince in premisso bello-vulnerati extiterat phalelo vno in insula illa arrepto cur captiuis septe (quos illis tribuimus) tres videlicet viros & quatu ormulieres in terram sua cu gaudio magno et mas

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pna viriu nostraru admiratione regressissuit. Nosca hyspanie viam sequentes Caliciu tandem repetius mus portu cum. CC.xxij.captiuatis personis.xv. Octobris die Anno dni. M. cccclxxxxix. Vbi setissi me suscepti suimus/ac vbi eosde captiuos nostros vendidimus. Et hec sunt que in hac nauigatiõe nos stra priore annotatu digniora cospeximus.

De secundarie nauigatiois cursu

VANTVM AD SECVNDARIE nauigationis curlum & ea que in illa me moratu digna conspexi /dicet in sequen tibus. Eandem igit inchoantes nauigatio nem Calicium exiuimus portu Anno dñi M.cccc Ixxxix. Man die. Quo exitu facto nos curlum nos strum Campiuiridis ad insulas arripientes necno ad infularum magnę Canarie visum transabeuns tes in tantu nauigauimus vt insule cuidam que ige nis insula dicit applicaremus/vbi facta nobis de lis gnis & aqua puilione & nauigatione nostra rurs sum p Lebecciu vetu incepta est. Post enauigatos xix.dies terră quădă nouă tande tenuimus/quam quide sirmă existere censumus cotra illa de qua fa cta in luperioribus métio est/& que quidé terra in zona torrida extra lineam equinochialem ad parte Austrusita è supra qua meridionalis polus se.v.

altat gradibus extra quodeunce clima distatce ea/ dem terra a prenominatis infulis vt per Lebeccium ventu costabat leucis.cccc. In qua terra dies cu no tribus equales.xxvij.lunij cum sol in cancri tropie co est existere reperimus. Eande terra in aquis ois no submersam necnon magnis fluminibus psusam esse iuuenimus/que et quidem semet plurimu viris dem et proceras altissimas quarbores habente mon strabat vnde nemine in illa esse tunc percepimus. Tum vero costitimus & classem nostra anchoraui mus solutis nonmillis phaselis cu quibus.in terram ipsam accedere tentauimus. Porro nos aditum in il lam queretes & circu eam sepius gyrantes ipam vt pretactu est sic fluminu vndis vbice perfusam ins uenimus vt nusce locus esset qui maximis aquis no immadesceret. Vidimus tri interim per flumina ipla ligna comulta quemadmodu ipla eadem tellus inhabitata esset & incolis metis secunda. At qm 🚥 de signa cossideraturi in ipsam descendere nequies bamus/ad naues nras reuerti cocordauimus quod & quide fecimus. Quibus ab hinc exanchoratis! postea int Leuante & Seroccu ventu/ collateralit secundu terram (sic spirante vento) nauigauimus/ pertentantes sepius interim pluribus & xl. duranti bus leucis si in ipsam penetrare insulam valeremus Qui labor ois inanis extitit. Cu siquide illo in late maris fluxu qui a Serocco ad Magistrale abibat lis violentu copererimus vt idem mare se nauigabi

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le no preberet. Quibus cognitis incorenientibus consilio facto couenimus/vt nauigiu nostru p mas re ad Magistrale reslecteremus. Tumos secudu ter ram ipam intatu nauigauimus vt tande portui vni applicaremus/qui bellissima insulam bellissimuce sinu quendam in eius ingressu tenebat / supra que nobis nauigantibus vt in illu introire possemns ins mensam in infula ipsa gentiu turbam a mari quatu or leucis aut circiter distate vidimus. Cuius rei gra letati no paru extitimus. Igit paratis nauiculis nris vt in eande insula vaderemus lintre quada in qua g sonç complures erant ex alto mari venire vidimus ppter quod tuc couenimus vt eis inualis ipos cos prehenderemus. Et tuc in illos nauigare in gyrum (ne euadere possent) circudare occepimus/quibus fua quocp vice nitentibus vidimus illos (aura tem» perata manête) remis suis oibus sursum erectis qua li firmos ac relistentes se significare velle/qua re sie idcirco illos efficere putauimus ve inde nos in admi rationem couerteret. Cũ yo libi nos cominus app pingre cognouissent remis suis i aqua couersis ter ră plus remigare îceper. Atth nobilcu carbalu vnă xlv.dolioru volatu celerrimu educebamus/que tue tali nauigio delata est vt subito ventu sup eos obti neret.Cumcy irruendi in illos aduenisset comodis ipli sese apparatucy suu in phaselo suo ordinate spargétes/se quocs ad navigandu accinxett. stage cu eos preteriflemus/ipi fugere conatifut. At nos d in

nonullis tunc expeditis phaselis/validis viris stipa tis illos tunc coprehendere putantes mox in eos in currimus contra q's bis geminis fere horis / nobis nitentibus/nisi carbasus nostra que cursu eos pres terierat rurlum super eos reuersa fuisset/illos penis tus amittebamus. Cum vero ipsi se eisdem nostris phaselis carbasoco vndico constrictos esse perspice rent oms q circit.xx.erat & a terra duabus fere leu cis distabat/in mare saltu psilierunt. Quos nos cu phaselis nostris tota psequentes die/nullos ex eis nisi tantumodo duos prehedere potuimus alijs ois bus in terram saluis abcuntibus. În lintre aute coru quam deseruerant bis gemini iuuenes extabant no de eorum gente geniti sed quos in tellure aliena ra puerat/quoru lingulis ex recenti vulnere virilia ab sciderant/que res admiratione no paruam nobis at tulit. Hos autem cu in nostras suscepissemus nauis culas nutibus nobis infinuarunt quemadmodu illi eos ab ipsis manducandos abducerent/indicantes interim quod ges hec tã effera & crudelis/hūanarū carniu comestrix Cambali nucuparet. Postea aut nos ipsam eoru lintrem nobiscum trahentes/& cu nauiculis nostris cursum eoru terra versus arripien paruper interim costitimus & naues nras mes dia tantu leuca a plaga illa distates anchorauimus! quam cu populu plurimu oberrare vidissemus in illam cum iplis nauiculis nostris subito properauis

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mus ductis nobiscum duobus illis quos in lintre nobis inuala coprehenderamus. Qua primu aute terram ipsam pede contigimus oms trepidi & ses ipsos abdituri in vicinas nemoru latebras diffuges runt. Tum vero vno ex illis quos prehenderas mus abire permisso & plurimis illi amicicie signis necno nolis cymbalis / ac speculis pleriscy datis/di ximus ei ne ppter nos ceteri qui aufugerant expas uescerent/qm eoru amicos esse plurimum cupieba mus/qui abiens iussa nostra soletter impleuit gens te illa tota.cccc.videlicet fere viris/cum fæminis multis a siluis secu ad nos eductis. Qui inermes ad nos vbi cum naujculis nostris eramus omnes vene runt/& cu quibus tuc amiciciam bona firmauimus restituto quoch eis alio quem captiuu tenebamus & pariter eorum lintrem quam inualeramus p nas uiu nostraru socios apud quos erat eis restitui man dauimus. Porro hec eoru linter que ex solo arboris trunco cauata & multu subtiliter esfecta suerat/104 ga.xxvi.pasibus et sata duobus brachijs erat.Hac cu a nobis recuperassent & tuto i loco fluminis re posuissent oms a nobis repente sugerunt nec nobi scum amplius conversari volverunt. Quo tam bar baro facto comperto illos malæ fidei malços cons ditionis existere coguouimus. Apud eos aure duta xat pauculu quod ex auribus gestabant vidimus. Itacp plaga illa relicta & secundum eam nauigatis/

lxxx.circiter leucis statione quanda nauiculis tuta reperimus/in quam introeutes tantas inibi coperis mus getes vrid mirabile foret. Cu gbus facta ami acia iuimus deinde cu eis ad plures eore pagos vbi mfiu secure mitucp honeste ab eis suscepti fuimus & ab eis iterim.ccccc.vniones vnica nola emimus cum auro modico quod eis ex gratia cotulimus. In hac terra vinu ex fructibus semetibusce expressum vi ciceram ceruiliamue albam et rubente bibut/me lius aut ex myrre pomis valde bonis cofectu erat ex quibus cu mulus abonis alijs fructibus gustui sapidis & corpori salubribus habudanter comedis mus/ppterea q tépestiue illuc adueneramus. Hee eade insula eon rebus suppellectiliue comultu has bundans est/genscs ipsa bone couersationis & ma loris pacificetie est of vso alibi repererimus alia. In hoc portu.xvij. diebus cu ingenti placito perstitis rus venietibus quotidie ad nos populis mitis nos effigiemos nostrã & albedinem necno vestimenta armacs nostra & nauiu nostraru magnitudine ade mirantibus. Hij etia nobis gentem quanda eis infe stam occidente y sus existere retulerunt/que gens infinità habebant vnionum quantitaté/gt & quos ipli habebant vniones eisde inimicis suis in bellige ratioibus aduerlus cos habitis abstulerat nos que & queadmodu illos piscarent & queadmodu nas scerent edocentes quoru dicta vera psecto esse co

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gnouimus put et maiestas vra posthecamplius in telligere poterit. Relicto aut portu illo & secundu plaga eande in qua cotinue gentes affluere pspicie bamus curlu nostro pducto portu quenda aliu res liciede vnius nauicule nostre gra/in quo gete muls tã esse coperimus/cu quibus nee vi nec amicicia co uersatione obtinere valuimus/illis si qñès in terra cu nauiculis nostris descenderemus se corra aspere defendentibns/& si que nos sustinere no valeret in silvas aufugientibus/ & nos nequaçõe expectanti bus/quore tanta bar barie nos cognoscentes ab eis exhine discessimus. Tuncep inter navigandu infula quandă in mari leucis a terra.xv. distante vidimus quam si in ea populus quispia esset inuisere cocors dauimus. In illam igif accelerantes quanda inibi in/ uenimus gentem/que oim bestialissima simplicissie mack/omniu quock gratiosissima benignissimack crat/cuiusquide gentis ritus et mores eiusmodisut.

De eiusdem gentis ritu & moribus.
II VVLTV AC GESTV CORPO ris brutales admodum'extant/ singulics maxillas herba quada viridi îtrorlum res pletas habebat/qua pecudum instar vscp ruminas bant/ita vt vix quicos eloqui possent/quoru quos que singuli ex collo pusillas siccatasce cucurbitas du as/alteram earum herba ipla quam in ore tenebat/ alteram vero exipsis farina quadam albida gipso

mutuo simili plenam gerebant/habi to bacillo quo dam que in ore suo madefactu masticatum ca sepis us in cucurbitam farrina repletă mittebant/& dein de cum eo de eadem farrina extrahebat/ quam sibi post hec in ore verumes ponebant/herbam ipsam qua in ore gestabant eade farrina respergitado/ & hoc frequentissime paulatimes efficiebat/qua rem nos admirati/illius causam secretucp/aut cur ita fas ceret satis nequiuinus coprehe dere. Heccine gens (vt experimento didicimus) ad nos adeo familiaris ter aduenit/ac si nobiscu sepius antea negociati sus issent & longquã amicicia habusssent. Nobis aute per plagam ipsam cu eis ambulantibus colloquens tibus & interim recentem aquam bibere delides rantibus/ipsi per signa se calibus aquis penitus cas rere infinuantes vitro de herba farinace quam in ore gestabant offerebant/propter quod regionem eandem aquis desicientem qu qu vt sittm suble & uarent suam herbam farinam talem in ore gestas ret intelleximus. Vnde factum est vt nobis ita mes antibus & circu plagam eandem vna die cum mes dia illos cocomitantibus viuidam aquam nusco in uenerimus/cognouerimuscop ea quam bibebant aqua ex rore noctu super certis solijs auriculis asini similibus decidete collecta erat. Quequidem folia eiulmodi rore nocturno tpe le implebăt ex g rore (qui optius e)ide ppis bibebat/sed tñ talibus folijs

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plera & coru loca deficiebant. Heccine gens victus alibus que in terra solida sunt penitus carent quins ymmo ex piscibus quos in mari piscantur viuunt. Etenim apud eos qui magni piscatores existunt pi scium ingens habundat copia/ex quibus ipsi pluri mos turtures ac cibonos pisces alios plures/vltro nobis obtulerunt. Eorum vxores herba quain ore viri ipli gerebant nulos vtebantur. Verum lingule cucurbitam vnam aqua impletam ex qua biberent habebant. Nullos domorum pagos nulla ve tugu ria gens hechabent preterco folia grandia quedam sub quibus a solis feruore sed no ab ymbribus se p tegunt/propter quod autumabile est q parum in terra illa pluitet. Cum aute ad piscandu mare adice rint folium vnu adeo grande secum quiscs piscatu rus effert yt illo in terram defixo & ad solis meas tum versato sub illius vmbra aduersus estu totum fe abscodat. Haccine in insula omulta varioru ges nerum animalia sunt que omnia aquam' lutulentã bibut. Videntes aut quin ea comodi nihil nancisce remur/nos relicta illa alia quamda infula tenuimus in quam nos ingredientes & recentem vnde bibes remus aqua inuestigantes/putantes interim ipsam eandem terra a nullis esse habitatam/propterea qui in ea nemine inter adueniendum pspexeramus/du per arena deambularemus vestigia pedum Emag gna nonulla vidimus/ex quibus celuimus qui eila

dem pedibus reliqua membra respondebant/hos mines in eadem terra grandissimi habitabant. No bis aut ita per arenam deambulantibus/via vnam in terram ducente coperimus secundum quam.ix. de nobis eutes insulam ipsam inuisere parauimus ob id conon Espaciosam illamnec Emultas in ea habitare gentes existimauimus. Pererrata igitur se cundu eamdem viam vna sere leuca quince in con valle quadam(que populate apparebant) vidimus casas/in quas introeuntes quince in illis reperimus mulieres/vetulas videli cet duas & iuuenculas tres quequidem oms sic statura peeres erat vt inde val de miraremur. He aut protinus ve nos intuite sunt adeo stupefacte permanserut vt aufugiendi animo penitus desicerent. Tumcs vetule ipse lingua eoru nobiscum blandiuscule loquentes/et sese omnes in casam vnam recipietes pmulta nobis de suis victu alibus obtulerunt Eedem yo oms longissimo viro statura grandiores erant & quidé eque grandes vt Franciscus de Albicio/sed meliore on nos sumus p portiõe compacte. Quibus ita compertis posthec vna couenimus/vt iuueculis ipsis per vim arreptis eas in Castiliam quasi re admirada abduceremus! in qua deliberatiõe nobis existentibus ecce.xxxvi. vel circiter viri mlto of femine ipse altiores/& adeo rgregie copoliti/vtillos inspicere delectabile soret calam ipsam introire occeperut/ppter quos tanta

### SECVNDA

tuc affecti fuimus turbatiõe vt satius apud nauicus las nras ce eu tali gente esse duxissemus. Hij & em ingentes arcus & sagittas necnon & sudes pticase ue magnas instar clauaru ferebant/qui ingressilo/ quebantur quocpinter se mutuo ac si nos compre hendere vellet. Quo tali periculo percepto diuerfa etia îter nos tuc fecimus cofilia. Vnis vtillos i ipla cade casa inuaderemus/alijs do nequatos sed foris potius & î platea/& alijs vt nuscip aduersus eos pu gnam quereremus donec quid agere vellet itellige remus asseuerantibus. Inter que cosilia casam illa si mulate exiuimus & ad naues nras remcare occepi mus iplica (cus est lapidis iactus) mutuo sp loque tes nos insecuti sunt/haud minore of nos vt autus mo trepidantes formidine/cu nobis mirantibus ipi quoce eminus manerent/& nisi nobis ambulantis bus no ambularent. Cu yo ad naues nostras pertis gissemus & in illas ex ordine îtroiremus/mox oes in mare profilierunt/& Emultas post nos sagittas fuas iaculati funt/sed tuc eos ppaucu metuebamus Nam tum machinaru nraru duas in eos (potius vt terreret co vt itetiret)emilimus/quaruquide tumul tu pcepto/oes cofestim in mote vnu ppiquu suga abiert/et ita ab eis erepti fuimus discessimusca pit Hijoes nudi ve de poribus hitu e eunt. Appellauis mulcs isula illa/gigatu(ob, pceritate eorz)isula. No bis atvlsius et a tra paulo distatius trasremigatibus

sepius interdum cum eis pugnasse nobis accidit ob id cp quicco a tellure sua sibi tolli nequaqua permit tere vellent. Et vtick quide repet unde Castillie pe politum iam nobis in mentem subierat/ob id potis limum covno iam fere anno in mari perstiteramus nec nili tenuem alimentoru necessariorucp alioru munitione retinebamus. Que & quide adhuc ex vehementibus/quos pertuleramus solis caloribus ia cotaminata inquinatacp erat/cu ab exitu nostro a Campiuiridis insulis vscp tunc cotinue per torris dam nauigauissemus zonam/& transuersim per li neam equinoctialem bis/vt prehabituest. In qua quidem voluntate nobis perseuerantibus/nos a la boribus subleuare nostris sanctifico coplacuit spiri tui. Nempe receptu quempiam pro rurlum nouan dis nauali bus nostris nobis querentibus ad gens tem quamda peruenimus que nos cu maxia susces pit amicicia/& qualquidem vnionu perlaru ve ori entalium comperimus in numero maximo tenere! ppter quod.xlvij.diebus ibi perstitimus &.C.xix. vnionū marchas/preclo(vtestimabamus).xl. non superante ducatos/ab eis coparauimus. Na nolas/ specularia/cristallinoscy nonullos/necno squissima electri folia queda/eis tantu ppterea tradidimus. Nempe quot quilibet eorum obtineret vnio nes eos p sola nola donabat. Didicimus quocp ine terdum ab eis quomodo & v.biillos piscarentur/

### SECVNDA

qui & quidem ostreolas in quibus nascunt nobis plures largiti funt. Et pariter nonnullas mercati fui mus/vbi in quibuldam .C.& xxx.vniones in qui busdam vero no totidem reperiebant. Nouerite maiestas vestra/cp visi permaturi sint & a conchis lijs in quibus gignunt per sele excidant omnine pe fecti no funt. Quinymmo in breuic vt læpius iple expertus sum)emarcescut/& i nihil redacti sut. Cu vero maturi fuerint in oftrea ipla inter carnes (pre ter id cp ipsis carnibus hereant) se separant/ & huiuscemodi optimi sut Efluxis igit. xlvij. diebus nec non gente illa quam nobis plurimu amica effecera mus relicta hinc ab eis excessimus ob plurimarum rerum nostraru indigentiam/venimusca ad Antie glie infulam qua paucis nuper ab annis Cristopho rus Columbus discooperuit in qua reculas nostras ac naualia reficiendo mensibus duobus & diebus totide permansimus/plures interdum Christicolas rum inibi conuersantiu contumelias perpetiendo quas prolixus ne nimiū fiam hic omitto. Eande yo insulam.xxn.luln deserentes/percursa vnius mens sis cum medio nauigatione Caliciu tandem portu vin mensis Seprembris subinimus /vbi cum hono re plectuce suscepti suimus. Et sic per dei placitum finem nostra cepit secunda nauigatio.

De tertio facta nauigatione

EIN SIBILLIA EXISTENTE / ET a pœnis atop laboribus quos îter pmemo ratas pertulera nauigationes paulisper re quiescente/desideratecp posthecin perlaru terram remeare: fortuna fatigation u meare nequaço adhue fatura serenissimo illi dño Manueli Portugallig Re gi milit in cor(nescio vt quid) vt destinato nuncio litteras regales suas ad me trasmitteret quibus plus rimurogabat vt ad eu apud Lisbona celerius me transferre/ipe etem mirabilia mihi plurima faceret. Super qua re nondu tunc deliberaui quinymmo ei per eundemmet nunciu/me minus bene dispositu Etune male habere lignificavi. Veru fi quandoce recoualescere & maiestati eius regie meum forsan coplaceret oblequiù omnia quecunce vellet ex ani mo perficere. Qui rex percipies op me ad se tuc tra ducere nequire Iulianu Bartholomeu locundu qui tuncin Lisbona erat rursum ad me destinauit cum comissione vt oibus modis me ad eunde rege secu perduceret: ppter cuius Iuliani aduentu et preces! coactus tuc fui ad rege ipum meare/quod(qui me nouerant omnes) malu esse judicarunt. Et ita a Cas stilia vbi honor mihi non modicus exhibitus extis terat/acrex ipse Castilie existimatione de me bos nam conceperat profectus sum/82 quod deterius hit hospite infalutato/ac mox coramipso rege do mino Manuele meiplum obtuli: qui rex de aduens

### TERTIA

tu meo non paruam visus est concepisse seticiam plurimu me interdum rogitans/vt vna cum tribus eius coseruantie nauibus/que ad exeundum & ad nouaru terrarum inquisitione preparate erant prosicisci vellem. Et ita quia regum preces precepta sunt) ad eius votum consensi.

# Tempus profectionis tertie

IGITUR AB HOC LISBONE PORTY eum tribus conservantie nauibus die Maij deci : ma.M.ccccc.& primo abeuntes /curlum nostrum versus magne Canarie insulas arripuimus: secuns du quas & ad earu prospectu instanter enauigates idem nauigiu nostru collateralner secundu Affris cam occidente plus secuti suimus. Vbi pisciu quos rundam(quos Parghi nuncupant)multitudine ma ximam in equore prendidimus/tribus inibi diebus moram facientes. Exinde autem ad partem illam Ethopie/que Besilicca dicié devenimus/que quide sub torrida zona posita est/& super quam. xiij; gradibus se Septemtrionalis erigit polus in climas te primo vbi diebus. xi. nobis de lignis & aqua pro tissioné parantes restitimus/ppter id co Austru & sus p Athlanticu pelagus nauigandi mihi inesset af fectus. Itacp portu Ethiopie illu post hec relinquem

tes tunc per Lebecciù ventu in tantu navigavimis vulx.et.vij.infra dies infule cuidam applicuerimus que insula.DCC. a portu eodem leucis ad Lebeccij parie distaret. În quibusquide diebus/peius ppele li tépus suimus qui vnc in matiquil antea pertu lerit/ppt ventoru nimboruue impeus/qui qiplu» rima nobis intulere grauamina ex eo co nauigium nostrulines presertim equinoctiali cotinue iunctu fuit. Inibics in mense lunio hyems extat ac dies no. Ctibus equales sunt/atcp ipse vmbre ne continue versus meridiem erant. Tandem vero omnitonan ti placuit noua vnam nobis ostendere plaga. xvij. scilicet Augusti/iuxta quam(leuca sepositi ab eade cum media) restitimus/et postea assumptis cymbis nonullis in ipla viluri li inhabitata effet plecti fuis mus: quam & quide incolas plurimos habitare rec perimus qui bestijs prauiores erat/queadmodum maiestas regia vestra posthec Intelliget. In hoc vo introitus nostri principio gentem non percepunus aliqua/quis oram iplam per ligna plurima (que vi dimus) populo multo repleta esse intellexerimus. De qua quide ora pro iplo serenissimo Castilic res ge possessoriu cepimus/iuuenimuscu illa multum amœna/ac veride esse & apparentic bone. Est aus të extralineam equinoctialem Austrum versus.v. gradibus/et ita eadem die ad naues nostras repeda uimus. Quia vero lignorum & aque penuriam pa

### TERTIA

tiebamur / concordavimus iteru in terra altera die reverti vi nobis de necessariis puideremus: inqua quidem nobis extantibus/v idimus stantes in vnis us montis cacumine gentes que deorsum descedes te non auderent/erantcp nudiomnes necno consi milis effigiei colorisce vt de supionbus habitu est. Nobis aut satagentibus ve nobiscu conversatu aca cedereti no sic securos cos efficere valuimus vt de nobis adhue no diffiderent. Quoru obstinatioe, p teruiacs cognita/ad naues sub nocte remeauimus relictis in terra (videntibus illis) nolis speculist no nullis ac rebus alijs. Cucp nos in mari eminus esse prospiceret/oms de ipso mote ppter reculas quas reliqueramus) descenderunt plurima inter se admi rationis signa facientes. Nectunc de aliquo nisi de aqua nobis puidimus. Crastino auté effecto mane vidimus e nauibus gentem eandem numero co an tea maiore passim per terram ignes fumosos facies tem. Vnde nos existimantes quinos per hocadse in uitarent iuimus ad eos in terram/vbi tune populu plurimu aduenisse cospeximus: qui tamen a nobis longe seipsos tenebant/signa facientes interim no nulla vt cum eis interius in infulā vaderemus. Pro pter quod factu est vt ex Christicolis nris duo pe tinus ad hoc parati periculo ad tales eundi semets ipsos exponerent/vt quales gentes eedem sorent/ aut siquas divitias speciesue aromaticas vilas habe

rent/ipsi cognoscerent: quapropter in tantu nauit pretorem rogitauerunt/vt eis quod postulabat an nueret. Tum vero illi ad hoc sele accingetes necno plerasco de rebus suis minutis secu sumentes/vin de a gentibus eifdem mercarent alias/abierut a no» bis data conditione vt ad nos post quincy dies ad summu remeare soliciti esset / nos etenim illos tam diu expectaremus. Et ita tuciter suum in terră arri puerunt/atcp nos ad naues nostras regressum ces pimus vbi expectando eos diebus. vin. perstiti > mus. In quibus diebus gens per multa noua dietim fere ad plaga iplam adueniebat / led nulco nobilcu colloqui voluerut Septima igit aduentate die nos in terram ipam iteru tendentes/gente illam mulie? res suas omnes secu adduxisse reperimus. Qua vo primu illuc peruenimus/mox ex eisdem vxoribus luis ad colloquendu nobiscu coplures miserunt/fæ minis tamen eisdem non satis de nobis considentio bus: quod quidem nos attendentes cocordauimus vtiuuenem vnum e nobis(qui validus agilisce nis mium esset) ad eas quoch trasmitteremus/& tunc vt minus fæmine ecdem metueret in nauiculas nos stras introiuimus. Quo egresso iuuene cu seipsum enterillas immiscuisset/acilicomnes circumstantes contingerent palparentce eum/& propter eum no parum admirarentur: ecce interea de monte fæmis na vna vallum magnu manu gestans aduenit quæ

#### TERTIA

postop vbi iuuenis ipse erat appropiauit/tali eu val lisui ictu a tergo percussit vt subito mortuus in ter ram excideret: que confestim mulieres alig corripis entes/illu in monte a pedibus ptraxerut/virics ipsi qui in monte erat ad littus cum arcubus & sagittis aduenietes ec sagittas suas i nos concietes tali gete nostra affecerut stupore(ob id co nauicule ille i qui bus erat harena nauigando radebat/nec celerit au fugere tunc poterant) vt sumendoru armorum suo rum memoriam nemo tunc haberet. Et ita oplus res cotra nos sagittas suas eiaculabantur. Tum ve to in eos quatuor machinarum nostrarum fulmina licet neminem attingetia emilimus / quo audito to nitruo omnes rurlum in monte fugerunt /vbi mus lieres ipse erat/que iuuene nostrum quem trucidas uerant(nobis videntibus)in frusta secabant/necno frusta ipsa nobis ostentantes / ad ingentem quem succenderant ignem torrebaut/& deinde posthæc manducabut. Viri quoch ipsi signa nobis similiter facientes / geminos Christicolas nostros alios se pariformiter peremisse manducassecp insimuabant quibus qui & vrice vera loquebantur/in hoc ipso credidimus. Cuius nos improperij vehementius pi guit/cum inmanitatem quam in mortuum exerces bant/oculis intueremur ipsirpropris. Quamob. rem plures & quadraginta de nobis in animo stas biliueramus vt omes pariter terram ipsam impetu

petentes cam immane factu tames bestialem seros cià vindicatu vaderemus. Sed hocipsum nobis na uipretor no permilit/& ita tam magna ac tam gra Ciem iniuria passi cu maliuolo animo & grandi opa probrio nostro (efficiete hoc nauipreceptore aro) impunitis illis abcessimus. Postes aut terram illam reliquimus/mox îter Leuante et Seroccu ventum (secudu quos se cotinet terra) nauigare occepimus plurimos ambitus plurimos gyros interdum ses ctantes /quibus durâtibus gentes no vidimus que nobilcu practicare aut ad nos appropinquare vos huerint. In tantu yo nauigauimus vt tellurem vna nouă (que secundu Lebecciu se porrigeret) inuene rimus. În qua cu campu vnu circuiuissemus(cui san cti Vincentij campo nomen'indidimus) secundum Lebecciú ventu posthec nauigare occepimus. Dis statcp idem sancti Vincentij campus a priore terra illa vbi Cristicole nostri extitert interempti.d. leu cis ad partem Leuatis. Qui et quide campus vin. gradibus extra lineam equinoctialem versus aur strum est. Cum igit ita vagantes iremus/quada die copiosam gentiu multitudinem/nos nauium on no Ararum vastitate mirantiu in terra vna alia esse co speximus:apud quos tuto in loco mox restitimus & deinde interram ipfum ad eos ex nauiculis no? stris descendimus/quos quidem mitioris esse cons ditionis & priores reperimus. Nam & si in edomão

### TERTIA

dis illis diu elaborauimus/amicos tamé nostros cas tandem effecimus: cum quibus negociando praétis candock varie.v.manlimus diebus vbi cauas listus las virides plurimu grossas/& etiam nonullas in ar boru cacuminibus siccas inuenimus. Concordauie mus aut vt ex eadem gente duos qui nos eoru line guam edocerent inde traduceremus. Quamobrem tres ex eis vt in Portugallia venirent nos vitro co mitati sunt. Et qui me omnia prosequi ac describes re piget/dignetur vestra nosse maiestas co nos por tum illum linquentes/per Lebecciu ventu/& in vi/ su terre semper transcurrimus plures continue facis endo scalas pluresco ambitus/ac interdu cu multis populis loquendo: donec tandem versus Austrum extra Capicorni tropicu fuimus. Vbi sup horizon ta illu meridionalis polus.xxxij.sese extollebat gra dibus/atop minorem iam perdideramus vrlam/ipa ce maior vrsa multu infima videbat fere in fine Ho rizontis se ostentans: & tuc per stellas alterius me ridionalis poli nosmetipsos dirigebamus /que mul to plures mito comaiores ac lucidiores con nostri po Il stelle existut : propter quod plurimaru illaru figu ra confinxi / & presertim earu que prioris ac maio, ris magnitudinis erant/vna cu declinatione diame troru quas circa polum Austri efficiunt/& vm ou denotatione earudem diametroru & semidiamen trofu earum prout in meis quatuor dietis live naui

gationibus inspici sacile poterit. Hoccine yo nauis gio nostro a campo sancti Augustini incepto. Dcc. percurrimus leucas videlicet ysus ponentem.c./et versus Lebecciu. Dc. quasquide du peragraremus si quis que vidimus enumerare vellet non totidem el papirez carte sufficerent. Nec quidem interdum magni comodi res inuenimus demptis infinitis cas lie arboribus: et pariter plurimis que laminas cere producunt/cu quibus & miranda alia per muls vidimus que fastidiosa recesitu forent. Et in hac quidem peragratioe.x. fere mensibus extitimus. In qua cognito o mineralia nulla reperiebamus/con uenimus vna vt ab inde surgetes alio p mare euae garemur. Quo inito îter nos consilio/mox edictu fuit ac in omnem cetu nostru vulgatu vt quicquid in tali nauigatione precipiendu censerem idipsum stegriter sieret. Propter quod cofestim edixi mada vice vbice vt de lignis & aqua p sex mensibus mu nitione omnes sibi pararent (Nam per nauiu mas gistros nos cum nauibus nostris adhuc tantudem nauigare posse indicatu est) quaquidem (quam edi xeram)facta provisione/nos oram illa linquetes & inde nauigauone nostram per Seroccu ventu initi antes Februarij. xiij. videlicet/cum sol equinoctio iam appropinquaret et ad hoc Septentrionis hemi speriu nostru y geret in tantu peruagati suimus vt meridianu polu super horizonta illu.lij. gradibus

### TERTIA

sublimatu inuencrimus. Ita vt nec minoris vrienec maioris stellæ ammodo inspici valerent. Nam tuc a portu illo a quo per Seroccum abieramus .cccce leucis longe iam facti eramus.in. videlicet Aprilis: Qua die tempestas acprocella in maritam vehes mens exorta est/vt vela nostra omnia colligere & cum solo nudo com malo remigare copelleremur per flante vehementissime Lebeccio ac mari intumes scëte & aere turbulentissimo extante. Propter que turbinis violentissimu impetum nostrates omnes non modico affecti fuerunt stupore. Noctes quos ce tunc inibi comaxime erant. Etem Aprilis. vn. sos le circa arietis finem extante iplæ eçdem noctes lin tarum.xv.esse reperte sunt: hyems ce etia tuc inibi erat vt vestra satis perpedere potest maiestas. No bis autem sub hac nauigatibus turbulentia/terram vnam Aprilis. ij. vidimus penes quam. xx. circiter leucas nauigantes appropiauimus. Veru illam om nimodo brutalem & extraneam esse comperimus in quaquidem nec portu quempiam nec gentes ali quas fore cospeximus: ob id (vt arbitror) q ta aspe rumin ea frigus algeret vt tam acerbum vix quils qua perpeti posset. Porro in tanto periculo in tans tacs tempestatis importunitate nosmet tum repeti mus/vt vix alteri alteros pre grandi turbine nos vi deremus. Quamobrem demum cum nauium prçs tore pariter concordauimus vt connauitis nostris

omnibus/terram illa linquendi/set ab ea elongan di /& in Portugalliam remeandi signa faceremus Quod coliliu fanu quidem etvtile fuit/cum si inibi nocte solu adhucilla perstitissemus disperditi oms eramus. Nempe cu hinc abijssemus ta grandis die sequenti tempestas in mari excitata est/vt penitus obrui perdite metueremus. Propter quod plurima peregrinationu vota necnon alias Eplures cerimo nias (prout nautis mos esse solet) tunc secimus. Sub quo tempestatis ifortunio. v. nauigauimus diebus demissis omnino velis. In quibusquidem. v. diebus cc.et.l.in mari penetrauimus leucas/linee interdum equinoctiali necno mari & aure temperatiori seme per appropinguando/per quod nos a premissis en pere periculis altissimo deo placuit. Eratos huiusce modinostra namigatio ad transmontanti ventu & grecu/ob id co ad Ethiopie latus pertingere cupies bamus: a quo g maris Athlantici fauces eundo M: ecc. distabamus leucis. Ad illa aut per summitonan tis gratiam Maij bisquina pertigimus die. Vbi in plaga vna ad latus Austri( que Serraliona dicitut) xv. diebus nosipsos refrigerando fuimus. Et post hec curlum nostrum versus insulas Lyazori dictas arripuimus/quequide infule a Serraliona ipa. Deca &.l. leucis distabant/ ad quas sub luin sinem pers uenimus/& pariter.xv.inibi nos reficiendo persti amus diebus. Post quos inde exisimus & ad Lis

### OVARTA

cidentis partem.ccc.sepositi leucis eramus/et cuius tandem deinde portum.M.D.ij.cii prospera saluaz tione ex cunctipotentis nutu rursum subiuimus/cii duabus dumtaxat nauibus: ob id cp tertia in Serraz liona (qii amplius nauigare no posset) igni come busseramus. In hac aute nostra tertio cursa nauigaz tione.xvi.circiter menses permasimus/e quibus.xiz abscp transmontane stelle necnon & maioris vrse minorisue aspectu nauigauimus/quo tempore nos metipsos per aliam meridionalis posi stellam regez bamus. Que superius commemorata sunt/in cas dem nostra tertio facta nauigatione relatu magis digna conspexi.

# De quarte nauigationis curlu

r que in tertia nauigatione nostra prospes xerim edisserà. Quia vo ia presonga nar ratione fatisco/et quoch hec eadem nostra nauiga tio ad speratum a nobis sine minime producta est ob aduersitatem infortuniune quoddam quod in maris Athlantici nobis accidit sinu: ideireo breuior siam. Igitur ex Lisbone portu cum sex coseruantie nauibus exiuimus cu proposito insulam vnam ver sus horizontem positam inuisendi/que Melcha di f in

citur & divitiarum multaru famosa necno navium omniu siue a Gangetico siue ab, indico mari venis entium receptus siuç statio est/quemadmodu Car licia receptus siue hospitale omniu nauigantiu est qui ab oriente in occidente & econuerlo vagantur prout de hoc ipso per Calicutiç vià fama est. Que quidem insula Melcha plus ad occidente Calicutia 30 ipla plus ad meridiem respicit: quod idcirco cos gnouimus quia ipfa in aspectu. xxxin. graduu poli antarctici sita est. Decima ergo Maij die. M. D.iij. nobis vnde supra egredientibus cursum nostru ad insulas virides nuncupatas primo dixerimus. Vbi rerum necessariaru munimina necnon et plura dis uerloru modoru refrigeramina lumentes et.xij. ins terdum inibi diebus cessantes/per ventum Serocu post hec euanigare occepimus: cu nauidominus no Rertames presumptuosus capitosus preter neces sitatem & omniù nostrum vnanimitatem(sed solu vt sele nostri & sex nauiu prepositu ostentaret) iul sit vt in Serraliona Australem Ethiopie terram ten deremus. Ad qua nobis accelerantibus & illa tans dem in cospectu habentibus tam immanis & acers ba suborta tempestas est/ac ventus contrarius & fortuna aduersa inualvit/vt in ipsam(quam nostris ipli videbamus oculis) per quatriduum applicare non valudrimus: quinymmo coacti fuerimus vt illa relicta ad priorem nauigatione nostram regredere

## QVARTA

mur. Quamquidem nos per Suduesium, qui vens tus est inter meridiem et Lebecciu) reassumentes ccc.per illam maris artitudine nauigavimus leucas Vnde factu est vi nobis extra lineam equinoctias lem tribus pene gradibus iam tunc existentibus ter ra quedam(a qua xij. distabamus leucis) apparuez rit/que apparitio no parua nos affecit admiratione Terra etem illa/insula in medio mari multu alta & admirabilis erat/que leucis duabus longior & vna dilatatior no existebat: in quaquidem terra nuqua quisti hominu aut fuerat aut habitauerat, & nihilo minus nobis infælicissima fuit. In illa em p stolidu consiliu suum & regimen presectus navium noster nauem suă perdidit. Nempe illa a scopulo quodam elisa/& inde ppter hoc in rimas divisa sancti Laus retinocte (que Augusti.x.est) in mari penitus sub mersa extitit/nihil inde saluo manente demptis tan tumodo nautis. Eratop nauis eadem dolioru. ccc.in qua nostre totius turbe totalis potentia erat. Cum aut omnes circa illam satageremus vt si forte ipam a periculo subtrahere valeremus: dedit mihi in man datis idem nauium prefectus/vt cu uauicula vna in receptu quempiam bonu vbi pupes nostras secure omnes recipere possemus apud insulam eande ins uentu pergere/nolens tamen iple idem presectus vt nauem meä (que nouem nautis meis stipata/ & in nauis periclitantis adiutorio intera foret) mecu

füŋ

tunc traducere/sed solu vt edixerat portu ynum in quilitu irem /et in illo nauem mea iplam mihi resti tuerat. Qua iussione recepta/ego vt madauerat(su pta mecu nautaru meoru medietate)in insula ipam (a qua.iiñ.distabamus leucis)properans/pulcherri mum inibi portu/vbi classem nostră omne tute sas tis suscipere possemus inueni. Quo coperto. vin. ibidem diebus eunde nauiu prefectum cu reliqua turba expectado perstiti. Qui cu no adueniret mo leste no perum pertuli/atcp qui mecu erant sic obs stupescebant vt nullo consolari modo vellent. No bis aut in hac existentibus angustia/ipa octaua die puppim vna per equor aduentare cospeximus/cui vt nos percipere possent mox obuiam iuimus con sidentes speratescovna quod ad meliore portu que piam nos secu duceret. Quibus du appropinquals Temus/& vicissim nos resalutassemus: retulerut illi nobis/eiulde prefecti nri naue in mari penitus ( de/ ptis nautis) pdita extitisse: que nucia (vt coteplari vra pot regia maiestas) me no parua affecert mole stia/eu aLisbona(ad qua reuerti habeba). M.longe existens leucis in longo remotocy mari me esse sen tirem. Nihilominus tamen fortung nosmet subijcis entes viterius pcessimus/reversics i primis suimus ad memorată infulă vbi nobis de lignis & aq in co seruatie mee naui puidimus: Erat yo eade îlula pe mitus inhospitata îhabitatace/msta aqua viuida &

## QVARTA

suam in illa scaturiente/cum infinitis arboribus inc numeril & volucribus marinis & terrestribus/que adeo simplices erant vt sele manu comprehendi intrepide permitterent. Propter quod tot füe pren didimus ve nauicula vnam ex illis adimpleuerimus În ea aute nulla alia inuenimus animalia pterce mu res comaximos/et lacertas bifurcam caudam habe tes cum nonullis serpentibus quas etiam in ea vidi mus. Igitur parata nobis inibi provisione sub vene to inter meridiem & Lebecciu ducête perreximus ob id con rege mandatu acceperamus/vt qualicun on non obstante periculo precedentis nauigationis viam in sequeremur. Incepto ergo huiuscemodi na uigio portum tandem vnum inuenimus que om/ nium sanctoru Abbaciam nucupauimus/ad quem (prosperam annuente nobis auram altissimo)infra xvij.pertigimus dies.Distatoridem portusiece.a p fata insula leucis/in quoquide portu nec presedum nostru nec quemqua de turba alium reperimus/& si tamé in illo mensibus duobus & diebus quatuor expectauerimus/quibus efluxis vifo quilluc nemo veniret conseruantia nostra tune & ego cocordani mus/vt secudu latus longius progrederemur. Per curlis itaque.cc.lx.leucis portui cuidam alij applicui mus in quo castellum vnu erigere propoluimus! quod & quide pfecto fecimus relichis in illo.xxiin. Christicolis nobiscum existentibus/qui ex presecti

ostri pupe perdita collecti fuerant. Porro in eode portu prefatu costruendo castellu & bresilico pu pes nostras onustas efficiendo. v. perstitimus men sibus/ob id cp pre nautaru perpaucitate et plurimo ru apparatuu necessitate lõgius pgredi nõ valeba mus. Quibus superioribus ita peractis concordas uimus post hecin Portugalliam reuerti/quam rem per grecu transmontanucs ventum necesse nobis erat efficere. Relictis igitur in castello presato Chri sticolis.xxiiij.et cum illis.xij.machinis ac alijs pluri bus armis vna cu provisione pro sex mensibus suf. ficiente/necno pacata nobiscum telluris illius gens te de qua hic minima fit mentio. licet infinitos ini. bi tuc viderimus/et cum illis practicauerimus. Nã xl.fere leucas cum.xxx.ex eis in insulam ipsam per netrauimus. Vbi interdum plurima perspeximus que nunc subticescens libello meo.iii.nauigationu reservo. Ester eadem terra extra linea equinoctia» Iem ad partem Austri. xviij. gradibus & extra Lise bone meridianu ad occidentis partem.xxxv.prout instrumenta nostra monstrabant) nos nauigatios nem nostră per Nornordensium (qui inter orçcum transmontanucs ventus est)cu animi proposito ad ad hanc Lisbone civitate psiciscendi miciantes/tan dem post multos labores multacp pericula in hunc eiusde Lisbone portu ifra.lxxvn.dies.xxvin. lunn. M.D.iin.cum dei laude introiuimus. Vbi honoris

#### QVARTA

mus: ob id op ipla tota ciuitas nos in mari disperdientos esse existimabat/que admodu reliqui omnes de turba nostra p precti nei nauiu stulta presumption ne extiterat. Quo superbia modo iustus omniu ce sor deus copensat. Et ita nuc apud Lisbona iplam subsisto ignorans quid de me serenissimus iple rex deinceps essicere cogitet/q a tantis laboribus meis iam exnunc requiescere plurimu peroptarem/ hue nunciu maiestati vestre plurimu quoca interdu comendans. Americus Vesputius in Lisbona.

Pressit/& ipsa e de Christo monimeta fauer. Tempore venturo cerera multa premet.



Finitū.vij.kl.Maij Anno lupra lelqui millelimum.vij.

Vrb. Deodate tuo darelcens nomine pracul Qua Vogesi montis sunt iuga pressit opus



### INTRODUCTION TO COSMOGRAPHY

WITH CERTAIN NECESSARY PRINCIPLES OF GEOMETRY AND ASTRONOMY

TO WHICH ARE ADDED

## THE FOUR VOYAGES OF AMERIGO VESPUCCI

A Representation of the Entire World, both in the Solid and Projected on the Plane,
Including also lands which were Unknown to Ptolemy, and have been
Recently Discovered

#### DISTICH

Since God rules the stars and Cæsar the earth, Nor earth nor stars have aught greater than these.

# TO MAXIMILIAN CÆSAR AUGUSTUS PHILESIUS, NATIVE OF THE VOSGES

Since thy Majesty is sacred throughout the vast world, Maximilian Cæsar, in the farthest lands,

Where the sun raises its golden head from the eastern waves

And seeks the straits known by Hercules' name,
Where the midday glows under its burning rays,
Where the Great Bear freezes the surface of the sea;
And since thou, mightiest of mighty kings, dost order
That mild laws should prevail according to thy will;
Therefore to thee in a spirit of loyalty this world map
has been dedicated

By him who has prepared it with wonderful skill.

THE END.

#### PREFACE

# TO HIS MAJESTY MAXIMILIAN CÆSAR AUGUSTUS MARTINUS ILACOMILUS WISHES GOOD FORTUNE

If it is not only pleasant but also profitable in life to visit many lands and to see the most distant races (a fact that is made clear in Plato, Apollonius of Tyana, and many other philosophers, who went to the most remote regions for the purpose of exploration), who, I ask, most invincible Maximilian Cæsar, will deny that it is pleasant and profitable to learn from books the location of lands and cities and of foreign peoples,

Which Phœbus sees when he buries his rays beneath the waves,

Which he sees as he comes from the farthest east, Which the cold northern stars distress,

Which the south wind parches with its torrid heat, Baking again the burning sands?

(Boethius.)

Who, I repeat, will deny that it is pleasant and profitable to learn from books the manners and

#### Preface

customs of all these peoples? Surely—to express my own opinion—just as it is worthy of praise to travel far, so it can not be foolish for one who knows the world, even from maps alone, to repeat again and again that passage of the Odyssey which Homer, the most learned of poets, wrote about Ulysses:

Tell me, O Muse, of the man who after the capture of Troy

Saw the customs and the cities of many men.

Therefore, studying, to the best of my ability and with the aid of several persons, the books of Ptolemy from a Greek copy, and adding the relations of the four voyages of Amerigo Vespucci, I have prepared for the general use of scholars a map of the whole world—like an introduction, so to speak—both in the solid and projected on the plane. This work I have determined to dedicate to your most sacred Majesty, since you are the lord of the world, feeling certain that I shall accomplish my end and shall be safe from the intrigues of my enemies under your protecting shield, as though under that of Achilles, if I know that I have satisfied, to some extent at least, your Majesty's keen judgment in such matters. Farewell, most illustrious Cæsar.

At St. Dié, in the year 1507 after the birth of Our Saviour.

#### ORDER OF TREATMENT

SINCE no one can obtain a thorough knowledge of Cosmography without some previous understanding of astronomy, nor even of astronomy itself without the principles of geometry, we shall in this brief outline say a few words:

- (1) Of the elements of geometry that will be helpful to a better understanding of the material sphere;
  - (2) Of the meaning of sphere, axis, poles, etc.;
  - (3) Of the circles of the heavens;
- (4) Of a certain theory, which we shall propose, of the sphere itself according to the system of degrees;
- (5) Of the five celestial zones, and the application of these and of the degrees of the heavens to the earth;
  - (6) Of parallels;
  - (7) Of the climates of the earth;
- (8) Of winds, with a general diagram of these and other things;
- (9) Of the divisions of the earth, of the various seas, of islands, and of the distances of

<sup>&</sup>lt;sup>1</sup> The word *climate* is here used in its ancient sense of a zone of the earth's surface comprised between two specified parallels of latitude.

#### Order of Treatment

places from one another. There will be added also a quadrant useful to the cosmographer.

Lastly, we shall add the four voyages of Amerigo Vespucci. Thus we shall describe the cosmography, both in the solid and projected on the plane.

#### CHAPTER I

OF THE PRINCIPLES OF GEOMETRY NECESSARY
TO AN UNDERSTANDING OF THE SPHERE

Since in the following pages frequent mention will be made of the circle, the circumference, the center, the diameter, and other similar terms, we ought first of all briefly to discuss these terms one by one.

A circle is a plane figure bounded by a line drawn around, and in the middle there is a point, all straight lines drawn from which to the surrounding line are equal to one another.

A plane figure is a figure, no point of which rises above or falls below the lines that bound it.

The circumference is the line that so bounds the circle that all straight lines drawn from the center to the circumference are equal to one another. The circumference is also called in Latin ambitus, circuitus, curvatura, circulus, and in Greek periphereia.

The center of a circle is a point so situated that all straight lines drawn from it to the line bounding the circle are equal to one another.

A semicircle is a plane figure bounded by the

#### Principles of Geometry

diameter of the circle and one half of the circumference.

The diameter of a circle is any straight line passing through the center of the circle and extending in both directions to the circumference.

A straight line is the shortest distance between two points.

An angle is the mutual coming together of two lines. It is the portion of a figure increasing in width from the point of intersection.

A right angle is an angle formed by one line falling upon another line and making the two angles on either side equal to each other. If a right angle is bounded by straight lines, it is called plane; if bounded by curved lines, it is called curved or spherical.

An obtuse angle is an angle that is greater than a right angle.

An acute angle is less than a right angle.

A solid is a body measured by length, breadth, and height.

Height, thickness, and depth are the same.

A degree is a whole thing or part of a thing which is not the result of a division into sixtieths.

A minute is the sixtieth part of a degree.

A second is the sixtieth part of a minute.

A third is the sixtieth part of a second, and so on.

#### CHAPTER II

Sphere, Axis, Poles, Etc., Accurately Defined

Before any one can obtain a knowledge of cosmography, it is necessary that he should have an understanding of the material sphere. After that he will more easily comprehend the description of the entire world which was first handed down by Ptolemy and others and afterward enlarged by later scholars, and on which further light has recently been thrown by Amerigo Vespucci.

A sphere, as Theodosius defines it in his book on spheres, is a solid and material figure bounded by a convex surface, in the center of which there is a point, all straight lines drawn from which to the circumference are equal to one another. And while, according to modern writers, there are ten celestial spheres, there is a material sphere like the eighth (which is called the fixed sphere because it carries the fixed stars), composed of circles joined together ideally by a line and axis crossing the center, that is, the earth.

The axis of a sphere is a line passing through

#### Geometrical Definitions

the center and touching with its extremities the circumference of the sphere on both sides. About this axis the sphere whirls and turns like the wheel of a wagon about its axle, which is a smoothly rounded pole, the axis being the diameter of the circle itself. Of this Manilius speaks as follows:

Through the cold air a slender line is drawn, Round which the starry world revolves.

The poles, which are also called cardines (hinges) and vertices (tops), are the points of the heavens terminating the axis, so fixed that they never move, but always remain in the same place. What is said here about the axis and the poles is to be referred to the eighth sphere, since for the present we have undertaken the limitation of the material sphere, which, as we have said, resembles the eighth sphere. There are accordingly two principal poles, one the northern, also called Arcticus (arctic) and Borealis (of Boreas), the other the southern, also called Antarcticus (antarctic). Of these Vergil says:

The one pole is always above us, but the other The black Styx and the deep shades see 'neath our feet.

We who live in Europe and Asia see the arctic pole always. It is so called from Arctus, or Arcturus, the Great Bear, which is also named Calisto, Helice, and Septentrionalis, from

#### Geometrical Definitions

the seven stars of the Wain, which are called *Triones*; there are seven stars also in the Lesser Bear, sometimes called *Cynosura*. Wherefore Baptista Mantuanus says:

Under thy guidance, Helice, under thine, Cynosura, We set sail over the deep, etc.

Likewise, the wind coming from that part of the world is called *Borealis* and *Aquilonicus* (northern). Sailors are accustomed to call *Cynosura* the star of the sea.

Opposite to the arctic pole is the antarctic, whence it derives its name, for arti in Greek is the equivalent of contra in Latin. This pole is also called Noticus and Austronoticus (southern). It can not be seen by us on account of the curvature of the earth, which slopes downward, but is visible from the antipodes (the existence of which has been established). It should be remarked in passing that the downward slope of a spherical object means its swelling or belly; that convexity is the contrary of it and denotes concavity.

There are, besides, two other poles of the zodiac itself, describing two circles in the heavens, the arctic and the antarctic. Since we have made mention of the zodiac, the arctic, and the antarctic (which are circles in the heavens), we shall treat of circles in the following chapter.

#### CHAPTER III

#### OF THE CIRCLES OF THE HEAVENS

THERE are two kinds of circles, called also segmina by authors, on the sphere and in the heavens, not really existing, but imaginary; namely, great and small circles.

A great circle is one which, described on the convex surface of the sphere, divides it into two equal parts. There are six great circles: the equator, the zodiac, the equinoctial colure, the solstitial colure, the meridian, the horizon.

A small circle on the sphere is one which, described on the same surface of the sphere, divides it into two unequal parts. There are four small circles: the arctic, the circle of Cancer, the circle of Capricorn, the antarctic. Thus there are in all ten, of which we shall speak in order, first of the great circles.

The equator, which is also called the girdle of the *primum mobile* and the equinoctial, is a great circle dividing the sphere into two equal parts. Any point of the equator is equally distant from both poles. It is so called because, when the sun crosses it (which happens twice a year, at

the first point of Aries, in the month of March, and at the first point of Libra, in the month of September), it is the equinox throughout the world and the day and night are equal. The equinox of March or of Aries is the vernal equinox, the equinox of September or of Libra the autumnal.

The zodiac is a great circle intersecting the equator at two points, which are the first points of Aries and Libra. One half of it inclines to the north, the other to the south. It is so called either from  $\zeta \dot{\omega} \delta i o \nu$ , meaning an animal, because it has twelve animals in it, or from  $\zeta \omega \dot{\eta}$ , meaning life, because it is understood that the lives of all the lower animals are governed by the movements of the planets. The Latins call it signifer (sign-bearing), because it has twelve signs in it, and the oblique circle. Therefore Vergil says:

Where the series of the signs might revolve obliquely.

In the middle of the width of the zodiac there is a circular line dividing it into two equal parts and leaving six degrees of latitude on either side. This line is called the ecliptic, because no eclipse of the sun or moon ever takes place unless both of them pass under that line in the same or in opposite degrees,—in the same, if it is to be an eclipse of the sun; in

opposite, if it is to be an eclipse of the moon. The sun always passes with its center under that line and never deviates from it. The moon and the rest of the planets wander at one time under the line, at another on one side or the other.

There are two colures on the sphere, which are distinguished as solstitial and equinoctial. They are so called from the Greek none, which means a member and the Latin uri boves (wild oxen), which Cæsar says, in the fourth book of his "Commentaries," are found in the Hercynian forest and are of the size of elephants, because, just as the tail of an ox when raised makes a semicircular and incomplete member, so the colure always appears to us incomplete, for one half is visible, while the other half is concealed.

The solstitial colure, which is also called the circle of declinations, is a great circle passing through the first points of Cancer and Capricorn, as well as through the poles of the ecliptic and the poles of the world.

The equinoctial colure, in like manner, is a great circle passing through the first points of Aries and Libra and the poles of the world.

The meridian is a great circle passing through

<sup>&</sup>lt;sup>1</sup> The passage referred to is in the sixth book, chapter xxviii, of the Commentaries.

the point vertically overhead and the poles of the world. These circles we have drawn ten degrees apart in our world map in the solid and projected on the plane. There is a point in the heavens directly over any object, which is called the zenith.

The horizon, also called *finitor* (limiting line), is a great circle of the sphere dividing the upper hemisphere (that is, the half of a sphere) from the lower. It is the circle at which the vision of those who stand under the open sky and cast their eyes about seems to end. It appears to separate the part of the heavens that is seen from the part that is not seen. The horizon of different places varies, and the point vertically overhead of every horizon is called the pole, for such a point is equally distant in all directions from the *finitor* or the horizon itself.

Having thus considered the great circles, let us now proceed to the small circles.

The arctic circle is a small circle which one pole of the zodiac describes about the arctic pole of the world by the motion of the *primum mobile*.

The antarctic is a small circle which the other pole of the zodiac makes and describes about the antarctic pole of the world. We mean by the pole of the zodiac (of which we spoke also in

the preceding chapter), the point that is equally distant from any point on the ecliptic, for the poles of the zodiac are the extremities of the axis of the ecliptic. The distance of the pole of the zodiac from the pole of the world is equal to the greatest declination of the sun (of which we shall say more presently).

The tropic of Cancer is a small circle which the sun, when at the first point of Cancer, describes by the motion of the *primum mobile*. This point is also called the summer solstice.

The tropic of Capricorn is a small circle which the sun, when at the first point of Capricorn, describes by the motion of the *primum mobile*. This circle is also called the circle of the winter solstice.

Since we have mentioned declination, it should be remarked that declination occurs when the sun descends from the equinoctial to the tropic of Cancer, or from us to the tropic of Capricorn; that ascension, on the contrary, occurs when the sun approaches the equator from the tropics. It is, however, improperly said by some that the sun ascends when it approaches us and descends when it goes away from us.

Thus far we have spoken of circles. Let us now proceed to the theory of the sphere and a fuller consideration of the degrees by which such circles are distant from one another.

#### CHAPTER IV

OF A CERTAIN THEORY OF THE SPHERE ACCORDING TO THE SYSTEM OF DEGREES

The celestial sphere is surrounded by five principal circles, one great and four small—the arctic, the circle of Cancer, the equator, the circle of Capricorn, and the antarctic. Of these the equator is a great circle, the other four are small circles. These circles, or rather the spaces that are between them, authors are wont to call zones. Thus Vergil, in the Georgics, says:

Five zones the heavens contain; whereof is one Aye red with flashing sunlight, fervent aye From fire; on either side to left and right Are traced the utmost twain, stiff with blue ice, And black with scowling storm-clouds, and betwixt These and the midmost, other twain there lie, By the gods' grace to heart-sick mortals given, And a path cleft between them, where might wheel On sloping plane the system of the signs.

Of the nature of the zones more will be said in the following pages. Inasmuch as we have mentioned above the pole of the zodiac that

describes the arctic circle, therefore in place of further consideration this must be understood to mean the upper pole of the zodiac (situated at an elevation of 66° 9′, and distant from the arctic pole 24° 51′¹). It must be recalled also that a degree is the thirtieth part of a sign, that a sign is the twelfth part of a circle, and that thirty multiplied by twelve gives three hundred and sixty. So it becomes clear that a degree can be defined as the three hundred and sixtieth part of a circle.

The lower pole of the zodiac describes the antarctic circle, which is situated in the same degree of declination and is at the same distance from the antarctic pole as the upper pole of the zodiac is from the arctic. The inclination of the ecliptic, or the greatest declination of the sun toward the north (which is situated 33° 51' from the equinoctial), describes the tropic of Cancer.

The other inclination of the ecliptic, or the greatest declination of the sun toward the south (which is situated the same number of degrees as stated before), describes the tropic of Capricorn.

The distance between the tropic of Cancer and the arctic circle is 42° 18′. The distance between the tropic of Capricorn and the antarctic circle is the same.

The middle of the heavens, being equally distant from the poles of the world, makes the equator.

<sup>&</sup>lt;sup>1</sup> Error for 23° 51'. <sup>2</sup> Error for 23° 51'.

Hitherto we have spoken of the five zones and of their distance from one another. We shall now briefly discuss the remaining circles.

The circle of the zodiac is determined by the poles of the zodiac. From the poles to the tropics (that is, to the greatest declinations of the sun or the solstices), the distance is 42° 18′. The width of the zodiac from the ecliptic toward either of the tropics is 6°, or in all 12°.

The solstices and the equinoxes mark the colures of declination and ascension. These intersect under the poles of the world along the axis of the heavens at spherical right angles; likewise along the equator. But the equinoctial colures going along the zodiac make oblique angles, while they make right angles along the zodiac of the solstices. The meridional circle, which is movable, is contained by the same axis under the poles themselves.

The circle of the horizon is determined by the zenith, for, as its upper pole, the zenith is everywhere equally distant from it. The circle of the horizon also divides our hemisphere from the other from east to west, but for those who are beneath the equinoctial, through the two poles of the world. The zenith of every horizon is always distant 90°, which is the fourth part of a circle, from the circumference of the horizon, while the circumference of the horizon

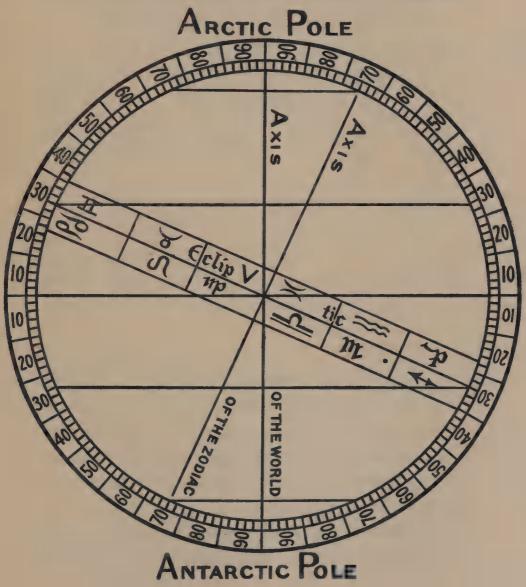
is four times as great as the distance between the zenith and the horizon.

It is worthy of notice that the axis of the world in the material sphere passes diametrically from the poles through the center of the world, which is the earth.

The axis of the zodiac, however, is not apparent in the sphere, but has to be conceived. This intersects the middle of the axis of the world, making unequal or oblique angles at the center.

In this way, in the very creation of the world there seems to be a wonderful order and extraordinary arrangement. The old astronomers, in describing the form of the world, followed, as far as possible, in the footsteps of the Creator Himself, who made all things according to number, weight, and dimensions. We, too, while treating of this subject, inasmuch as we are so hampered by the conditions of our space that our system of minutes can be perceived only with difficulty, or not at all, and, if perceived, would beget even annoyance as well as error, shall infer the positions of circles from the markings of degrees in full. For there is not much difference between 51' and a full degree, which contains 60', as we have said before, and in the book on the sphere and elsewhere it is indicated in exactly this way by specialists on this subject. Therefore in the diagram which

we shall here insert for the better understanding of these matters, the tropics of Cancer and Capricorn and the greatest declinations of the sun will be distant 24° from the equinoctial, the same as the distance of the poles of the zodiac or the arctic and antarctic circles from the poles of the world, situated at an elevation of over 66°.



#### CHAPTER V

OF THE FIVE CELESTIAL ZONES AND THE AP-PLICATION OF THESE AND OF THE DEGREES OF THE HEAVENS TO THE EARTH

UP To this point we have spoken very briefly of several geometrical principles, of the sphere, the poles, the five zones, the circles of the world, and of a certain theory in regard to these matters. Now, in regular order, if I am not mistaken, we come to the consideration of the application of these circles and degrees to the earth. It should therefore be known that on the earth there are five regions corresponding to the above-mentioned zones. Wherefore Ovid in the *Metamorphoses* says:

And as two zones the northern heaven restrain, The southern two, and one the hotter midst, With five the Godhead girt th' inclosed earth, And climates five upon its face imprest. The midst from heat inhabitable: snows Eternal cover two: 'twixt these extremes Two temperate regions lie, where heat and cold Meet in due mixture.

(Metamorphoses, i, 45-51, translated by Howard.) In order to make the matter clearer, let us

#### The Five Celestial Zones

state that the four small circles, the arctic, the circle of Cancer, the circle of Capricorn, and the antarctic, divide and separate the five zones of the heavens.

In the following diagram let a represent the arctic pole of the world, bc the arctic circle, de the circle of Cancer, fg the circle of Capricorn, hk the antarctic circle, and l the south pole.

The first zone, or the arctic, is all the space included between *bac*. This zone, being frozen stiff with perpetual cold, is uninhabited.

The second zone is all the space included between bc and de. This is a temperate zone and is habitable.

The third zone is all the space included between de and fg. This zone, on account of its heat, is scarcely habitable; for the sun, describing circles there with a constant whirling motion along the line fe (which for us marks the ecliptic), by reason of its heat makes the zone torrid and uninhabited.

The fourth zone is all the space included between fg and hk. This is a temperate zone and is habitable, if the immense areas of water and the changed conditions of the atmosphere permit it.

The fifth zone is all the space included between hkl. This zone is always stiff with cold and uninhabited.

#### The Five Celestial Zones

When we say that any zone of the heavens is either inhabited or uninhabited, we wish it to be understood that this applies to the corresponding zone lying beneath that celestial zone. When we say that any zone is inhabited or inhabitable, we mean that it is easily inhabitable. Likewise, when we say that any zone is uninhabited or uninhabitable, we understand that it is habitable with difficulty. For there are many people who now inhabit the dried-up torrid zone, such as the inhabitants of the Golden Chersonese,' the Taprobanenses,' the Ethiopians, and a very large part of the earth which had always been unknown, but which has recently been discovered by Amerigo Vespucci. In this connection we may state that we shall add the four voyages of Vespucci, translated from the Italian language into French and from French into Latin.

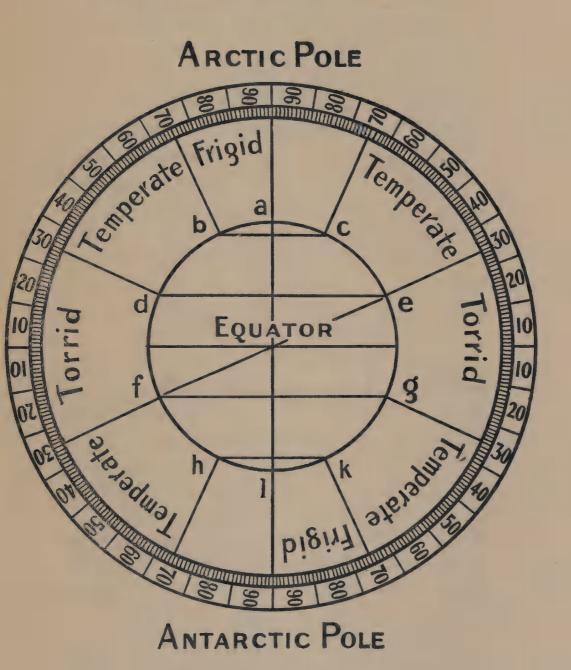
It must be understood, as the following diagram shows, that the first zone, which is nearest to the arctic pole, is 23° 51' in extent; the second, which is the antarctic, is equal to the arctic, and is therefore the same in extent; the third, a temperate zone, is 42° 18'; the fourth, which is equal to it, is also 42° 18'; the fifth, which is the torrid and is in the middle, is 47° 42'.

<sup>&</sup>lt;sup>1</sup> The peninsula of Malacca in India is probably meant.

The people of what is now the island of Ceylon.

#### The Five Celestial Zones

Let us here insert the diagram.



#### CHAPTER VI

#### OF PARALLELS

PARALLELS, which are also called Almucantars, are circles or lines equidistant in every direction and at every point, and never running together even if extended to infinity. They bear the same relation to one another as the equator does to the four small circles on the sphere, not that the second is as distant from the third as the first is from the second, for this is false, as is clear from the preceding pages, but that any two circles joined together by a perpendicular are equally distant from each other throughout their extent. For the equator is neither nearer to nor more distant from one of the tropics at any one point than at any other, since it is everywhere distant 23° 51' from the tropics, as we have said before. The same must be said of the distance from the tropics to the two extreme circles, either of which is distant 42° 44" from the nearer tropic at all points.

Although parallels can be drawn at any distance apart, yet, to make the reckoning easier,

<sup>&</sup>quot; Error for 42° 18'.

#### Of Parallels

it has seemed to us most convenient, as it seemed to Ptolemy also, in our representation of universal cosmography, both in the solid and projected on the plane, to separate the parallels by as many degrees from one another as the following table shows. To this table a diagram also will be subjoined, in which we shall extend the parallels through the earth on both sides to the celestial sphere.

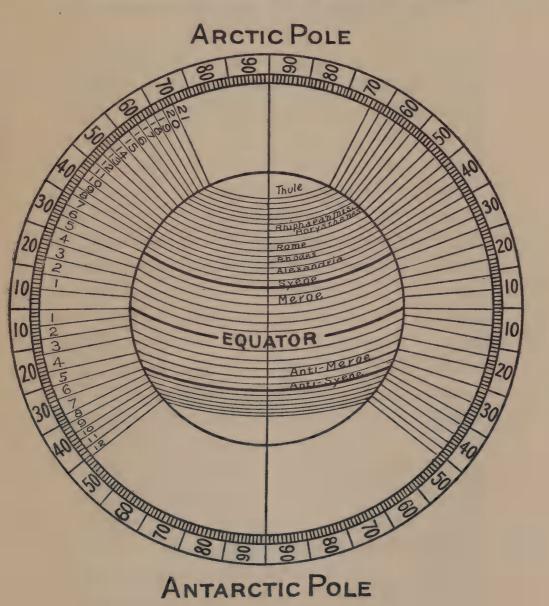
#### Of Parallels

Parallels from the equator	Degrees of the heavens	Greatest number of hours in a day	Number of miles in one degree
21 Of Thule 8	63	20	281/2
20	61	19	
19	58	18	$32\frac{1}{2}$
18	56	17	1/2 (sic?)
17	54	17	$37\frac{1}{2}$
16 Of the Rhiphæan Mts. 7	5 I ½	161	401
15 Of the Borysthenes (Dnieper) 6	48½	16	421/2
14	45	151/2	44
13	43 1 2	151/4	45
12 Of Rome 5	40112	15	47
II	387/2	143	48½
10 Of Rhodes 4	36	141/2	50
9	$33\frac{1}{3}$	14 <u>1</u>	
8 Of Alexandria 3	30 <del>1</del> /3	14	54
7	27 <sup>2</sup> / <sub>3</sub>	$13\frac{3}{4}$	
6 Of Syene 2	$23\frac{5}{6}$	131/2	57
5	20 <u>1</u>	134	
4 Of Meroe 1	$16\frac{5}{12}$	13	
3	I 2 1/2	I 2 3/4	
2	8 5 1 2	I 2 ½	
1	41/4	121/4	59
Equator equidistant from the poles		12 always	60
I	41/4	I 2 1/4	59
2	$8\frac{5}{12}$	I 2 ½	
3	I 2 1/2	123/4	
4 Anti-climate of Meroe	16 <sub>12</sub>	13	
5	201/4	I 3½	

Of Parallels

Parallels & Climates	Degrees	Hours	Miles
6 Anti-Climate of Syene	235/6	131/2	52
7	<b>2</b> 7 <sup>2</sup> / <sub>3</sub>	1 3 3/4	

And so on toward the Antarctic Pole, as the following diagram shows:



#### CHAPTER VII

#### OF CLIMATES

Although the word climate properly means a region, it is here used to mean a part of the earth between two equidistant parallels, in which from the beginning to the end of the climate there is a difference of a half-hour in the longest day. The number of any climate, reckoned from the equator, indicates the number of halfhours by which the longest day in that climate exceeds the day that is equal to the night. There are seven of these climates, although to the south the seventh has not yet been explored. But toward the north Ptolemy discovered a country that was hospitable and habitable, at a distance represented by seven half-hours. These seven climates have obtained their names from some prominent city, river, or mountain.

1. The first climate is called Dia Meroes (of Meroe, modern Shendi), from  $\delta\iota\dot{\alpha}$ , which in Greek means through and governs the genitive case, and Meroe, which is a city of Africa situated in the torrid zone  $\iota 6^{\circ}$  on this side of the equator, in the same parallel in which the Nile is found. Our world map, for the better understanding of which this is written, will clearly

#### Of Climates

show you the beginning, the middle, and the end of this first climate and also of the rest, as well as the hours of the longest day in every one of them.

- 2. Dia Sienes (of Syene, modern Assuan), from Syene, a city of Egypt, the beginning of the province of Thebais.
- 3. Dia Alexandrias (of Alexandria), from Alexandria, a famous city of Africa, the chief city of Egypt, founded by Alexander the Great, of whom it has been said by the poet:

One world is not enough for the youth of Pella.<sup>1</sup>
—(Juvenal, x, 168.)

- 4. Dia Rhodon (of Rhodes), from Rhodes, an island on the coast of Asia Minor, on which in our time there is situated a famous city of the same name, which bravely resisted the fierce and warlike attacks of the Turks and gloriously defeated them.
- 5. Dia Rhomes (of Rome), from a well-known city of Europe, the most illustrious among the cities of Italy and at one time the famous conqueror of all nations and the capital of the world. It is now the abode of the great Father of Fathers.
- 6. Dia Borysthenes (of Borysthenes, modern Dnieper), from a large river of the Scythians, the fourth from the Danube.

A city in Macedonia, the birthplace of Alexander.

#### Of Climates

7. Dia Rhipheon (of the Rhiphæan Mountains), from the Rhiphæan mountains, a prominent range in Sarmatian Europe, white with perpetual snow.

From these prominent places, through which approximately the median lines of the climates pass, the seven climates established by Ptolemy derive their names.

The eighth climate Ptolemy did not locate, because that part of the earth, whatever it is, was unknown to him, but was explored by later scholars. It is called Dia Tyles (of Thule, modern Iceland or Shetland), because the beginning of the climate, which is the twenty-first parallel from the equator, passes directly through Thule. Thule is an island in the north, of which our poet Vergil says:

The farthest Thule will serve.

—(Georgics, i, 30.)

So much for the climates north of the equator. In like manner we must speak of those which are south of the equator, six of which having corresponding names have been explored and may be called Antidia Meroes (Anti-climate of Meroe), Antidia Alexandrias, Antidia Rhodon, Antidia Rhomes, Antidia Borysthenes, from the Greek particle arti, which means opposite or against. In the sixth climate toward the antarctic there are situated the farthest part

#### Of Climates

of Africa, recently discovered, the islands Zanzibar, the lesser Java, and Seula (Sumatra?), and the fourth part of the earth, which, because Amerigo discovered it, we may call Amerige, the land of Amerigo, so to speak, or America. It is of these southern climates that these words of Pomponius Mela, the geographer, must be understood, when he says:

The habitable zones have the same seasons, but at different times of the year. The Antichthones inhabit the one, and we the other. The situation of the former zone being unknown to us on account of the heat of the intervening zone, I can speak only of the situation of the latter.

—(Perieg. i, 1, 9.)

Here it should be remarked that each one of the climates generally bears products different from any other, inasmuch as the climates are different in character and are controlled by different influences of the stars. Wherefore Vergil says:

Nor can all climes all fruits of earth produce.

Here blithelier springs the corn, and here the grape, Their earth is green with tender growth of trees And grass unbidden. See how from Tmolus comes The saffron's fragrance, ivory from Ind, From Saba's weakling sons their frankincense, Iron from the naked Chalybs, castor rank From Pontus, from Epirus the prize-palms O' the mares of Elis.

-(Georgics, i, 54-59, translated by Rhoades.)

#### CHAPTER VIII

#### OF THE WINDS

Since in the preceding pages we have mentioned the winds now and then (when we spoke of the north pole, the south pole, etc.), and as it is understood that a knowledge of winds is of some importance, or rather of great advantage, to cosmography, we shall for these reasons say something in this chapter about winds, also called *spiritus* and *flatus* (breeze). A wind, therefore, as defined by the philosophers, is an exhalation, warm and dry, moving laterally around the earth, etc.

Now, inasmuch as the sun has a triple rising and setting, the equinoctial rising and setting, and the winter rising and setting, according to its relation to the two tropics and the equator, and inasmuch as there are also two sides—to the north and to the south, all of which have winds peculiar to them; therefore it follows that there are twelve winds in all, three eastern, three western, three northern, and three southern. Of these the four which in the following diagram occupy the middle place are the principal winds; the others are secondary.

#### Of the Winds

		East	West	
Side	Tropic of Cancer	Kaikias	Chorus	
Principal	Equator	Subsolanus	Favonius or Zephyrus	
Side	Tropic of Capricorn	Eurus or Vulturnus	Africus or Libs	
		South	North	
Side		Euronotus	Septentrio	
Principal		Auster or Notus	Aquilo or Boreas	
Side		Libonotus	Trachias or Circius	

The poets, however, by poetic license, according to their custom, instead of the principal winds use their secondary winds, which are also called side winds. Thus Ovid says:

Far to the east
Where Persian mountains greet the rising sun
Eurus withdrew. Where sinking Phœbus' rays
Glow on the western shores mild Zephyr fled.
Terrific Boreas frozen Scythia seiz'd,
Beneath the icy bear. On southern climes
From constant clouds the showery Auster rains.
—(Metamorphoses, i, 61-66, translated by Howard.)

# Of the Winds

The east wind (Subsolanus), which is rendered by the sun purer and finer than the others, is very healthful.

The west wind (Zephyrus), having a mixture of heat and moisture, melts the snows. Whence Vergil's verse:

Melts from the mountain's hoar, and Zephyr's breath Unbinds the crumbling clod.

—(Georgics, i, 44, translated by Rhoades.)

The south wind (Auster) frequently presages storms, hurricanes, and showers. Wherefore Ovid says:

Notus rushes forth

On pinions dropping rain.

—(Metamorphoses, i, 264, translated by Howard.)

The north wind (Aquilo), by reason of the severity of its cold, freezes the waters.

And frosty winter with his north the sea's face rough doth wear.

—(Vergil, Æneid, iii, 285, translated by Morris.)

In regard to these winds, I remember, our poet Gallinarius, a man of great learning, composed the following:

Eurus and Subsolanus blow from the east.

Zephyrus and Favonius fill the west with breezes.

Auster and Notus rage on Libya's farthest shores.

Boreas and Aquilo cloud-dispelling threaten from the north.

#### Of the Winds

Although the north winds are naturally cold, they are softened because they pass through the torrid zone. This has been found to be true of the south wind, which passes through the torrid zone before it reaches us, as is shown in the following lines:

Wherever the cold south wind goes, it rages and binds the waters with tight fetters. But until with its blast it passes through the torrid regions, it comes welcome to our shores and hurls back the merciless shafts of the north wind. The latter wind on the contrary, which deals harshly with us, slackening its flight, becomes in like manner gentler in the lowest part of the globe. The other winds, where they direct their various courses, soon change, as they go, the natures which are proper to their homes.

We have said enough about winds. We shall now insert a general map, indicating the poles, the axes, the circles, great as well as small, the east, the west, the five zones, the degrees of longitude and latitude, both on the earth and in the heavens, the parallels, the climates, the winds, etc.

#### CHAPTER IX

OF CERTAIN ELEMENTS OF COSMOGRAPHY

It is clear from astronomical demonstrations that the whole earth is a point in comparison with the entire extent of the heavens; so that if the earth's circumference be compared to the size of the celestial globe, it may be considered to have absolutely no extent. There is about a fourth part of this small region in the world which was known to Ptolemy and is inhabited by living beings like ourselves. Hitherto it has been divided into three parts, Europe, Africa, and Asia.

Europe is bounded on the west by the Atlantic Ocean, on the north by the British Ocean, on the east by the river Tanais (modern Don), Lake Maeotis (modern Sea of Azov), and the Black Sea, and on the south by the Mediterranean Sea. It includes Spain, Gaul, Germany, Rætia, Italy, Greece, and Sarmatia. Europe is so called after Europa, the daughter of King Agenor. While with a girl's enthusiasm she was playing on the sea-shore accompanied by her Tyrian maidens and was gathering flowers in baskets, she is believed to have been carried off by

Jupiter, who assumed the form of a snow-white bull, and after being brought over the seas to Crete seated upon his back to have given her name to the land lying opposite.

Africa is bounded on the west by the Atlantic Ocean, on the south by the Ethiopian Ocean, on the north by the Mediterranean Sea, and on the east by the river Nile. It embraces the Mauritanias, viz., Tingitana (modern Tangiers) and Cæsarea, inland Libya, Numidia (also called Mapalia), lesser Africa (in which is Carthage, formerly the constant rival of the Roman empire), Cyrenaica, Marmarica (modern Barca), Libya (by which name also the whole of Africa is called, from Libs, a king of Mauritania), inland Ethiopia, Egypt, etc. It is called Africa because it is free from the severity of the cold.

Asia, which far surpasses the other divisions in size and in resources, is separated from Europe by the river Tanais (Don) and from Africa by the Isthmus, which stretching southward divides the Arabian and the Egyptian seas. The principal countries of Asia are Bithynia, Galatia, Cappadocia, Pamphylia, Lydia, Cilicia, greater and lesser Armenia, Colchis, Hyrcania, Iberia, and Albania; besides many other countries which it would only delay us to enumerate one by one. Asia is so called after a queen of that name.

Now, these parts of the earth have been more extensively explored and a fourth part has been discovered by Amerigo Vespucci (as will be set forth in what follows). Inasmuch as both Europe and Asia received their names from women, I see no reason why any one should justly object to calling this part Amerige, i.e., the land of Amerigo, or America, after Amerigo, its discoverer, a man of great ability. Its position and the customs of its inhabitants may be clearly understood from the four voyages of Amerigo, which are subjoined.

Thus the earth is now known to be divided into four parts. The first three parts are continents, while the fourth is an island, inasmuch as it is found to be surrounded on all sides by the ocean. Although there is only one ocean, just as there is only one earth, yet, being marked by many seas and filled with numberless islands, it takes various names. These names may be found in the Cosmography, and Priscian in his translation of Dionysius enumerates them in the following lines:

"The vast abyss of the ocean, however, surrounds the earth on every side; but the ocean, although there is only one, takes many names. In the western countries it is called the Atlantic Ocean, but in the north, where the Arimaspi are ever warring, it is called the sluggish sea,

the Saturnian Sea, and by others the Dead Sea,

\* \* \* \* \* \* \*

Where, however, the sun rises with its first light, they call it the Eastern or the Indian Sea. But where the inclined pole receives the burning south wind, it is called the Ethiopian or the Red Sea,

\* \* \* \* \* \* \*

Thus the great ocean, known under various names, encircles the whole world;

\* \* \* \* \* \* \*

"Of its arms the first that stretches out breaks through Spain with its waves, and extends from the shores of Libya to the coast of Pamphylia. This is smaller than the rest. A larger gulf is the one that enters into the Caspian land, which receives it from the vast waters of the north. The arm of the sea which Tethys (the ocean) rules as the Saturnian Sea is called the Caspian or the Hyrcanian. But of the two gulfs that come from the south sea, one, the Persian, running northward, forms a deep sea, lying opposite the country where the Caspian waves roll; while the other rolls and beats the shores of Panchæa and extends to the south opposite to the Euxine Sea.

\* \* \* \* \* \* \*

"Let us begin in regular order with the waters of the Atlantic, which Cadiz makes

famous by Hercules' gift of the pillar, where Atlas, standing on a mountain, holds up the columns that support the heavens. The first sea is the Iberian, which separates Europe from Libya, washing the shores of both. On either side are the pillars. Both face the shores, the one looking toward Libya, the other toward Europe. Then comes the Gallic Sea, which beats the Celtic shores. After this the sea, called by the name of the Ligurians, where the masters of the world grew up on Latin soil, extends from the north to Leucopetra; where the island of Sicily with its curving shore forms a strait. Cyrnos (modern Corsica) is washed by the waters that bear its name and flow between the Sardinian Sea and the Celtic. Then rolls the surging tide of the Tyrrhenian Sea, turning toward the south; it enters the sea of Sicily, which turns toward the east and spreading far from the shores of Pachynum extends to Crete, a steep rock, which stands out of the sea, where powerful Gortyna and Phæstum are situated in the midst of the fields. This rock, resembling with its peak the forehead of a ram, the Greeks have justly called Κριοῦ μέτωπον (ram's forehead). The sea of Sicily ends at Mt. Garganus on the coast of Apulia.

"Beginning there the vast Adriatic extends toward the northwest. There also is the Ionian

Sea, famous throughout the world. It separates two shores, which, however, meet in one point. On the right fertile Illyria extends, and next to this the land of the warlike Dalmatians. But its left is bounded by the Ausonian peninsula, whose curving shores the three seas, the Tyrrhenian, the Sicilian, and the vast Adriatic, encircle on all sides. Each of these seas within its limits has a wind peculiar to itself. The west wind lashes the Tyrrhenian, the south wind the Sicilian, while the east wind breaks the waters of the Adriatic which roll beneath its blasts.

"Leaving Sicily the sea spreads its deep expanse to the greater Syrtis which the coast of Libya encircles. After the greater Syrtis passes into the lesser, the two seas beat far and wide upon the re-echoing shores. From Sicily the Cretan Sea stretches out toward the east as far as Salmonis, which is said to be the eastern end of Crete.

"Next come two vast seas with dark waves, lashed by the north wind coming from Ismarus, which rushes straight down from the regions of the north. The first, called the Pharian Sea, washes the base of a steep mountain. The second is the Sidonian Sea, which turns toward the north, where the gulf of Issus joins it. This sea does not continue far in a straight line; for it is broken by the shores of Cilicia. Then

bending westward it winds like a dragon because, forcing its way through the mountains, it devastates the hills and worries the forests. Its end bounds Pamphylia and surrounds the Chelidonian rocks. Far off to the west it ends near the heights of Patara.

"Next look again toward the north and behold the Ægean Sea, whose waves exceed those of all other seas, and whose vast waters surround the scattered Cyclades. It ends near Imbros and Tenedos, near the narrow strait through which the waters of the Propontis issue, beyond which Asia with its great peoples extends to the south, where the wide peninsula stretches out. Then comes the Thracian Bosporus, the mouth of the Black Sea. In the whole world they say there is no strait narrower than this. There are found the Symplegades, close together. There to the east the Black Sea spreads out, situated in a northeasterly direction. From either side a promontory stands out in the middle of the waters; one, coming from Asia on the south, is called Carambis; the other on the opposite side juts out from the confines of Europe and is called Κριοῦ μέτωπον (ram's forehead.) They face each other, therefore, separated by a sea so wide that a ship can cross it only in three days. Thus you may see the Black Sea looking like a double sea, resembling the curve of a bow, which

is bent when the string is drawn tight. The right side resembles the string, for it forms a straight line, outside of which line is found Carambis only, which projects toward the north. But the coast that encloses the sea on the left side, making two turns, describes the arc of the bow. Into this sea toward the north Lake Mæotis (modern Sea of Azov) enters, enclosed on all sides by the land of the Scythians, who call Lake Mæotis the mother of the Black Sea. Indeed, here the violent sea bursts forth in a great stream, rushing across the Cimmerian Bosporus (modern Crimea), in those cold regions where the Cimmerians dwell at the foot of Taurus. Such is the picture of the ocean; such the glittering appearance of the deep."

(Priscian, Periegesis, 37, foll., ed. of Krehl.)

The sea, as we have said before, is full of islands, of which the largest and the most important, according to Ptolemy, are the following:

Taprobane (modern Ceylon), in the Indian Ocean under the equator; Albion, also called Britain and England; Sardinia, in the Mediterranean Sea; Candia, also called Crete, in the Ægean Sea; Selandia; Sicily, in the Mediterranean Sea; Corsica; Cyprus.

Unknown to Ptolemy: Madagascar, in the Prasodes Sea; Zanzibar; Java, in the East Indian

Ocean; Angama; Peuta, in the Indian Ocean; Seula; Zipangri (Japan), in the Western Ocean. Of these Priscian says:

"These are the large islands which the waters of the ocean surround. There are many other smaller islands, scattered about in different parts of the world, that are unknown, and that are either difficult of access to hardy sailors or suitable for harbors. Their names I cannot easily express in verse."

(Periegesis, 609-613.)

In order to be able to find out the distance between one place and another, the elevation of the pole must first be considered. It should therefore be briefly remarked that, as is clear from what precedes, both poles are on the horizon for those who live on the parallel of the equator. But as one goes toward the north, the elevation of the pole increases the farther one goes away from the equator. This elevation of the pole indicates the distance of places from the equator. For the distance of any place from the equator varies as the elevation of the pole at that place. From this the number of miles is easily ascertained, if you will multiply the number of degrees of elevation of the pole. But according to Ptolemy, from the equator to the arctic pole miles are not equal in all parts of the world. For any one of the degrees from the

first degree of the equator up to the twelfth contains sixty Italian miles, which are equivalent to fifteen German miles, four Italian miles being generally reckoned equal to one German mile. Any degree from the twelfth degree up to the twenty-fifth contains fifty-nine miles, or fourteen and three-quarter German miles.

In order to make the matter clearer, we shall insert the following table:

	Degrees	Degrees	Italian Miles	German Miles
Equator-	I up to	I 2 cont'ng	60	15
	I 2	25	59	143/4
Tropic—	25	30	54	131/2
	30	37	50	121/2
	37	41	47	111/41
	41	51	40	10
	51	57	32	8
	57	63	28	7
	63	66	26	6½
Arctic Circle-	66	70	21	5 1/4
	70	80	6	1 1/2
Arctic Pole—	80	90		0

<sup>&</sup>lt;sup>1</sup> Error for 113/4.

In like manner from the equator to either arctic or antarctic pole the number of miles in a degree of latitude varies. If you wish to find out the number of miles between one place and another, examine carefully in what degree of latitude the two places are and how many degrees there are between them; then find out from the above table how many miles there are in a degree of that kind, and multiply this number

by the number of degrees between the places. The result will be the number of miles between them. Since these will be Italian miles, divide by four and you will have German miles.

All that has been said by way of introduction to the Cosmography will be sufficient, if we merely advise you that in designing the sheets of our world-map we have not followed Ptolemy in every respect, particularly as regards the new lands, where on the marine charts we observe that the equator is placed otherwise than Ptolemy represented it. Therefore those who notice this ought not to find fault with us, for we have done so purposely, because in this we have followed Ptolemy, and elsewhere the marine charts. Ptolemy himself, in the fifth chapter of his first book, says that he was not acquainted with all parts of the continent on account of its great size, that the position of some parts on account of the carelessness of travelers was not correctly handed down to him, and that there are other parts which happen at different times to have undergone variations on account of the cataclysms or changes in consequence of which they are known to have been partly broken up. has been necessary therefore, as he himself says he also had to do, to pay more attention to the information gathered in our own times. We have therefore arranged matters so that in

#### Appendix

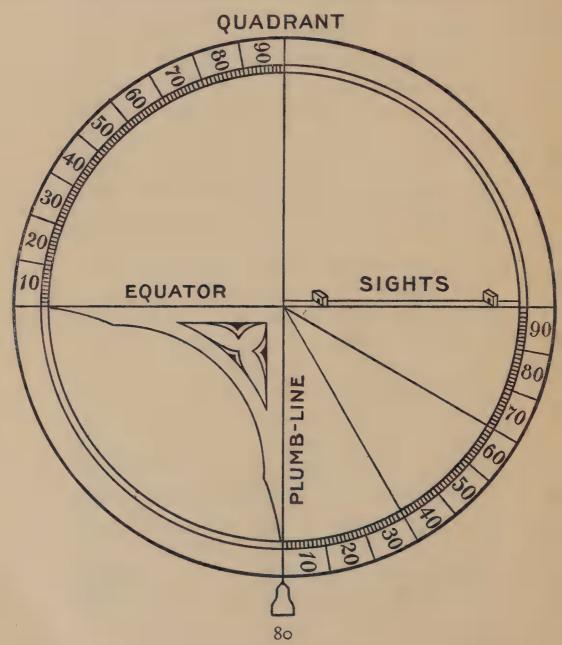
the plane projection we have followed Ptolemy as regards the new lands and some other things, while on the globe, which accompanies the plane, we have followed the description of Amerigo that we subjoin.

#### **APPENDIX**

Before closing, we shall add to the foregoing, as an appendix or corollary, a quadrant, by which may be determined the elevation of the pole, the zenith, the center of the horizon, and the climates; although, if rightly considered, this quadrant, of which we shall speak, has a bearing on this subject. For a cosmographer ought to know especially the elevation of the pole, the zenith, and the climates of the earth. This quadrant, then, is constructed in the following way. Divide any circle into four parts in such a way that the two diameters intersect at the center at right angles. One of these, which has sights at either end, will represent the axis of the poles of the world, the other the equator. Then divide that part of the circle which is between the semi-axis that has the sights and the other semi-diameter into ninety parts and the opposite part also into the same number, fix a plumb-line to the center, and your quadrant will be ready. The quadrant is used as follows: turn it so that you will see the

# Appendix

pole directly through the openings in the sights and then toward the climate and the degree to which the plumb-line will fall. Your region, as well as your zenith and the center of your horizon, lies in that climate and at that degree of elevation.



# Appendix

Having now finished the chapters that we proposed to take up, we shall here include the distant voyages of Vespucci, setting forth the consequences of the several facts as they bear upon our plan.

THE END OF THE OUTLINES

# PHILESIUS, BORN IN THE VOSGES

To THE READER

WHERE the fields enriched by the papyrusproducing Siris flower and the lakes of the Moon give birth to mighty rivers, on the right are the mountains of Ius, Danchis, and Mascha, at the foot of which dwell the Ethiopians. From this region rises Africus (southwest wind), which with Libonotus (west-southwest wind) blows over the heated lands. From the other direction blows Vulturnus (east-southeast wind) upon a sweltering people, coming, as it does, in its rapid course over the Indian Ocean. There under the equator lies Taprobana, while Bassa is seen in the Prasodes Sea. Beyond Ethiopia and Bassa in the sea lies a land unknown to your maps, Ptolemy, situated under the tropic of Capricorn and its companion Aquarius. To the right lies a land encircled by the vast ocean and inhabited by a race of naked men. This land was discovered by him whom fair Lusitania boasts of as her king, and who sent a fleet across the sea. But why say more? The position and the customs of the newly-discovered race are set forth in Amerigo's book. Read this, honest reader, with all sincerity and do not imitate the rhinoceros.

# THE FOUR VOYAGES OF AMERIGO VESPUCCI

TRANSLATED FROM THE FRENCH INTO LATIN

The Translator's Decastich to the Reader.

You who will read, perchance, this slender tome Will find within a voyage deftly told.

It tells of lands and peoples lately found;
A novel tale well suited to amuse.

A worthy task for Maro's lofty pen,
Which dressed in noble words a theme sublime.

He who the Trojan heroes wand'ring sang
Should eke have sung thy voyages, Vespucci.
When in our book you've visited these lands,
The contents probe; 'tis not the writer's care.

Distich to the Reader.

Since what is new and well told pleases you, I bring you what's amusing here and new.

THE END.

# THE FOUR VOYAGES OF AMERIGO VESPUCCI

To THE most illustrious René, King of Jerusalem and of Sicily, Duke of Lorraine and Bar, Amerigo Vespucci pays humble homage and presents appropriate recommendations.

Perchance, most illustrious King, your majesty will be astonished at my foolhardiness, because I feel no apprehension in addressing to you the present long letter, even though I know you to be incessantly occupied with matters of the highest importance and with numerous affairs of State. And I shall be considered not only a presumptuous man but one who has accomplished a useless work in undertaking to send you also a story which hardly concerns your position, addressed by name to Ferdinand, King of Castile, and written in an unattractive and quite unpolished style, as if I were a man unacquainted with the Muses and a stranger to the refining influence of learning. My trust in your merits, and the absolute truth of the following accounts (on matters which neither ancient nor modern authors have written), will perhaps excuse me to your Majesty.

# The Four Voyages of Amerigo Vespucci

I was urged to write chiefly by the bearer of the present letters, Benvenuto, an humble servant of your Majesty and a friend of whom I need not be ashamed. When this gentleman found me at Lisbon, he begged me to acquaint your Majesty with the things seen by me during my four voyages to different quarters of the globe. For, you must know that I have completed four voyages of discovery to new lands: two of them were undertaken by the order of Ferdinand, the illustrious King of Castile, and carried me toward the west, through the Great Gulf of the Ocean; the other two were undertaken at the command of Manuel, King of Portugal, and carried me toward the south.

I have therefore prepared myself for the task urged upon me by Benvenuto, hoping that your Majesty will not exclude me from the number of your insignificant servants, especially if you recollect that formerly we were good friends. I refer to the years of our youth, when we were fellow-students, and together drank in the elements of grammar under the holy and venerable friar of St. Mark, my uncle, Friar Giorgio Antonio Vespucci—a man of good life and tried learning. Had it been possible for me to follow in his footsteps, I should be quite a different man to-day, as Petrarch says. However that may be, I am not ashamed of being

# The Four Voyages of Amerigo Vespucci

what I am; for I have always taken pleasure in virtue for its own sake and in scholarship. If, then, these narratives give you no pleasure whatever, I shall repeat the words which Pliny once wrote to Mæcenas, "Formerly you were wont to take delight in my pleasantry." Your Majesty, it is true, is ever occupied with affairs of State; still, you can secretly steal just a little time in which to read these accounts, trifling though they be. I assure you that their very novelty will please. You will find in these pages no slight relief from the wasting cares and problems of government. My book will serve you as the sweet fennel, which, when taken after meals, is wont to leave a pleasant breath and to promote a better digestion.

If, by chance, I have been more prolix than the subject warrants, I crave your indulgence.

Farewell.

# PREFACE

Most illustrious King! Your Majesty must know that I came to this country primarily as a merchant. I continued in that career for the space of four years. But when I observed the various changes of fortune, and saw how vain and fleeting riches are, and how for a time they lift man to the top of the wheel and then hurl him headlong to the bottom—him, who had boasted of wide possessions;—when I saw all this, and after I had personally suffered such experiences, I determined to abandon the business career and to devote all my efforts to worthier and more enduring ends.

And so I set about visiting different parts of the world and seeing its many wonders. Both time and place were favorable to my plans. For Ferdinand, King of Castile, was at that time fitting out four ships to discover new lands in the west, and His Highness made me one of that company of explorers. We set sail from the harbor of Cadiz on the 20th of May, 1497, making our way through the Great Gulf of the

#### Preface

Ocean. This voyage lasted eighteen months, during which we discovered many lands and almost countless islands (inhabited as a general rule), of which our forefathers make absolutely no mention. I conclude from this that the ancients had no knowledge of their existence. I may be mistaken; but I remember reading somewhere that they believed the sea to be free and uninhabited. Our poet Dante himself was of this opinion, when, in the 18th canto of the Inferno, he pictures the death of Ulysses. From the following pages, however, your Majesty will learn of the marvels I saw.

A description of the chief lands and of various islands, of which ancient authors make no mention, but which recently, in the 1497th year from the incarnation of Our Lord, were discovered in the course of four ocean voyages undertaken by order of their Serene Highnesses of Spain and Portugal. Of these voyages, two were through the western sea, by order of King Ferdinand of Castile; the remaining two were through southern waters, by order of Manuel, King of Portugal. To the above-mentioned Lord Ferdinand, King of Castile, Amerigo Vespucci, one of the foremost captains and commanders of that fleet, dedicates the following account of the new lands and islands.

#### THE FIRST VOYAGE

In the year of Our Lord 1497, on the 20th day of May, we set sail from the harbor of Cadiz in four ships. On our first run, with the wind blowing between the south and the southwest', we made the islands formerly called the Fortunate Islands, but now the Grand Canary, situated at the edge of the inhabited west and within the third climate. At this place, the North Pole rises 27 % degrees above the horizon, the islands themselves being 280 leagues from the city of Lisbon, in which this present pamphlet was written. There we spent almost eight days, providing ourselves with fuel and water and other necessary things. Then, after first offering our prayers to God, we raised and spread our sails to the wind, shaping our course to the west, with a point to southwest. We kept on this course for some time, and just as the 27th day was past we reached an unknown land, the mainland as we thought. It was distant from the islands of the Grand Canary 1000 leagues, more or less; it was inhabited, and was situated in the Torrid Zone. This we ascertained from the following observations: that the North Pole rises 16 degrees above the horizon of this new land, and that it is 75 degrees more to the west

<sup>&</sup>lt;sup>1</sup>Vespucci names the wind according to the point toward which it blows.

than the islands of Grand Canary—at least so all our instruments showed.

Here we dropped the bow anchors and stationed our fleet a league and a half from the shore. We then lowered a few boats, and, filling them with armed men, we pulled as far as the land. The moment we approached, we rejoiced not a little to see hordes of naked people running along the shore. Indeed, all those whom we saw going about naked seemed also to be exceedingly astonished at us, I suppose because they noticed that we wore clothing, and presented a different appearance from them. When they realized that we had actually arrived, they all fled to a hill near by; and though we beckoned to them and made signs of peace and friendship, we could not induce them to approach. When night closed rapidly upon us, we felt some fear in trusting our ships in such a dangerous roadstead, for there was here no protection against violent seas. We therefore agreed to depart early the next morning in search of some harbor where we might station our ships in a safe anchorage. After we had formed this resolution, we spread our sails to a gentle breeze blowing along the shore, keeping land always in sight and continually seeing the inhabitants along the In this way we sailed for two whole days, and discovered a place quite suited to our

ships, where we anchored only one-half a league from the land. Here we again saw countless hordes of people. Desiring to see them close by and to speak with them, on that very day we approached the shore in our boats and skiffs, and then we landed in good order, about forty strong. The natives, however, showed themselves very loath to approach us or have anything to do with us. We could do nothing to induce them to speak with us or to enter upon any kind of communication. But finally, by dint of much labor undertaken with this one purpose in view, we managed to allure a few of them by giving them little bells and mirrors and pieces of crystal and other such trifles. In this way they became quite easy about us. They now came to meet us, and in fact to treat concerning terms of peace and friendship. At nightfall we took leave of them and returned to our ships. The next day, when the sun was quite risen, we again saw upon the beach an endless number of men and women, the latter carrying their children with them. We furthermore noticed that they were bringing with them all their household utensils, which will be described below in their proper place. The nearer we approached the shore, more and more of the natives jumped into the water (for there are many expert swimmers among them), and swam out the dis-

tance of a crossbow shot to meet us. They received us kindly, and in fact mingled among us with as complete assurance as if we had often met before and had frequently had dealings together. At this we were then very little pleased.

And now (so far as occasion permits), we shall devote some space to a description of their customs,—such as we were able to observe.

# ON THE CUSTOMS OF THE NATIVES AND THEIR MODE OF LIFE

In regard to their life and customs, all of them, both men and women, go about entirely naked, with no more covering for their private parts than when they were born. The men are of medium size, but are very well proportioned. The color of their skin approaches red, like the hair of a lion, and I believe that, if it were their custom to wear clothing, they would be as fairskinned as we are. They have no hair on their body, with the exception of that on the head, which is long and black, particularly that of the women, who are beautiful for this very Their features are not very handsome, reason. because they have broad cheek-bones like the Tartars. They do not allow any hair to grow on their eyebrows nor their eyelids nor anywhere on their body (with the exception of the head), for this reason,—because they deem it

coarse and animal-like to have hair on the body.

All of them, both men and women, are graceful in walking and swift in running. Indeed, even their women (as we have often witnessed) think nothing of running a league or two, wherein they greatly excel us Christians. They all swim remarkably well, in fact better than one would believe possible; and the women are far better swimmers than the men, a statement which I can make with authority, for we frequently saw them swim in the sea for two leagues without any assistance whatsoever.

Their weapons are the bow and arrow, which they have learned to make very skillfully. They are unacquainted with iron and the metals, and consequently, in place of iron, they tip their arrows with the teeth of animals and fishes, and they also often harden the arrows by burning their ends. They are expert archers, with the result that they strike with their arrows whatever they aim at. In some places also the women are very skillful with the bow and arrow. They have other weapons also, such as spears or stakes sharpened at the ends, and clubs with wonderfully carved heads.

They are wont to wage war upon neighbors speaking a different language, fighting most mercilessly and sparing none, except to reserve

them for more cruel torture later. When they go forth to battle, they take their wives with them, not that they too may participate in the fight, but that they may carry behind the fighting men all the necessary provisions. For, as we ourselves have often seen, any woman among them can place on her back, and then carry for thirty or forty leagues, a greater burden than a man (and even a strong man) can lift from the ground. They have no generals and no captains; in fact, since every one is his own leader, they go forth to war in no definite order. They never fight for power or territory, or for any other improper motive. Their one cause for war is an enmity of long standing, implanted in them from olden times. When questioned concerning the cause of such hostility, they give no other reason except that it is to avenge the death of their ancestors. Living as they do in perfect liberty, and obeying no man's word, they have neither king nor lord.

They are, however, especially inclined to war, and gird themselves for braver efforts when one of their own number is either a captive in the hands of the enemy or has been killed by them. In that case the oldest blood-relation of the prisoner or murdered man rises, rushes forth into the roads and villages, shouting and calling upon all, and urging them to hasten into battle with

him to avenge the death of his kinsman. All are quickly stirred to the same feeling, gird themselves for the fight and make a sudden dash upon their enemies.

They do not punish their evildoers; indeed, not even the parents rebuke or chastise their children; and, wonderful to relate, we several times saw them quarrel among themselves. They are simple in their speech, but very shrewd and crafty. They speak rarely; and when they do speak, it is in a low tone, using the same sounds as we. On the whole they shape their words either on the teeth or the lips, employing, of course, different words from those of our language. They have many different idioms, for we found such a variety of tongues in every hundred leagues that they do not understand one another.

They observe most barbarous customs in their eating; indeed, they do not take their meals at any fixed hours, but eat whenever they are so inclined, whether it be day or night. At meals they recline on the ground, and do not use either tablecloths or napkins, being entirely unacquainted with linen and other kinds of cloth. The food is served in earthen pots which they make themselves, or else in receptacles made out of half-gourds. They sleep in a species of large

net made of cotton and suspended in the air; and though this mode of sleeping may appear odd and uncomfortable, I testify that, on the contrary, it is very pleasant; for it was frequently my lot to sleep in such nets, and I had a feeling of greater comfort then than when under the coverlets which we had with us.

In their person they are neat and clean, for the reason that they bathe very frequently.

\* \* \* \* \*

In their sexual intercourse they have no legal obligations. In fact, each man has as many wives as he covets, and he can repudiate them later whenever he pleases, without its being considered an injustice or disgrace, and the women enjoy the same rights as the men. The men are not very jealous; they are, however, very sensual. The women are even more so than the men. I have deemed it best (in the name of decency) to pass over in silence their many arts to gratify their insatiable lust. They are very prolific in bearing children, and do not omit performing their usual labors and tasks during the period of pregnancy. They are delivered with very little pain,—so true is this that on the very next day they are completely recovered and move about everywhere with perfect ease. In fact, immediately after the delivery they go to some stream to wash, and then come out of the water as

whole and as clean as fishes. However, they are of such a cruel nature and harbor such violent hatreds that, if the husbands chance to anger them, they immediately commit some wrong. For instance, to appease their great wrath, they kill the fetus within their own wombs, and then cause an abortion. In this way countless offspring are destroyed. They have handsome, well-proportioned and well-knit figures; indeed, no blemish can possibly be discovered in them. . . .

No one of this race, as far as we saw, observed any religious law. They can not justly be called either Jews or Moors; nay, they are far worse than the gentiles themselves or the pagans, for we could not discover that they performed any sacrifices nor that they had any special places or houses of worship. Since their life is so entirely given over to pleasure, I should style it Epicurean.

Their dwellings are bell-shaped, and are strongly built of large trees fastened together, and covered with palm leaves, which offer ample protection against the winds and storms. In some places these dwellings were so large that we found as many as six hundred persons living in a single building. Of all these dwellings we found that eight were most thickly populated; in fact, that ten thousand souls lived within them at one and

the same time. Every eight or seven years they move the seat of their abodes. When asked the reason for this, they gave a most natural answer. They said that it was on account of the continual heat of a strong sun, and because, from dwelling too long in the same place, the air became infected and contaminated, and brought about various diseases of the body. And in truth, their point seemed to us to be well taken.

Their riches consist of variegated birds' feathers, and of strings of beads (like our pater nosters), made of fish bones, or of green or white stones. These they wear as ornaments on the forehead, or suspended from their lips and ears. Many other such useless trifles are considered riches by them, things to which we attach no value whatever. Among them there is neither buying nor selling, nor is there an exchange of commodities, for they are quite content with what nature freely offers them. They do not value gold, nor pearls, nor gems, nor such other things as we consider precious here in Europe. In fact they almost despise them, and take no pains to acquire them. In giving, they are by nature so very generous that they never deny anything that is asked of them. But as soon as they have admitted any one to their friendship, they are just as eager to ask and to receive. The greatest and surest seal of their

friendship is this: that they place at the disposal of their friends their own wives and daughters, both parents considering themselves highly honored if any one deigns to lead their daughter (even though yet a maiden) into concubinage. In this way (as I have said) they seal the bond of their friendship.

In burying the dead they follow many different customs. Some, indeed, follow the practice of inhumation, placing at the head water and food, for they believe that the dead will eat and subsist thereupon. But there is no further grief at their departure, and they perform no other ceremonies. In some places a most barbarous and inhuman rite is practised. When any one of their fellow-tribesmen is believed to be at the point of death, his relations take him into some great forest, where they place him in one of those nets in which they are accustomed to sleep. They then suspend him thus reclining between two trees, dance around him for a whole day, and then at nightfall return to their habitations, leaving at the head of the dying man water and food to last him about four days. If at the end of this period the sick man can eat and drink, becomes convalescent, regains his health, and returns to his own habitation, then all his relations, whether by blood or marriage, welcome him with the greatest ceremonies. But

there are few who can pass safely through so severe an ordeal. Indeed, no one ever visits the sick man after he is abandoned in the woods. Should he, therefore, chance to die, he receives no further burial. They have many other savage rites of burial, which I shall not mention, to avoid the charge of being too prolix.

In their sicknesses they employ many different kinds of medicines, so different from ours and so discordant with our ideas that we wondered not a little how any one could possibly survive. For, as we learned from frequent experience, if any one of them is sick with fever, they immerse and bathe him in very cold water just when the fever is at its height. Then they compel him to run back and forth for two hours around a very warm fire until he is fairly aglow with heat, and finally lead him off to sleep. We saw very many of them restored to health by this treatment. Very frequently they practise also dieting as one of their cures, for they can do without food and drink for three or four days. Again, they commonly draw blood, not from their arms (with the exception of the shoulder-blade), but from their loins and the calves of their legs. Often they bring about vomiting by chewing certain herbs which they use as medicines; and they have, in addition,

many other cures and remedies which it would be tedious to enumerate.

They are full-blooded and phlegmatic, owing to the food they eat, which consists chiefly of roots, fruits, herbs, and fishes of different kinds. They do not raise crops of spelt or of any other grain. Their most common food is a certain root which they grind into a fairly good flour and which some of the natives call iucha, others chambi, and still others ygnami. They very rarely eat flesh, with the exception of human flesh; and in this they are so inhuman and so savage as to outdo even the wild animals. Indeed, all the enemies whom they either kill or capture, without discriminating between the men and the women, are relished by them with such savageness that nothing more barbarous and cruel can either be seen or heard of. Time and again it fell to my lot to see them engaged in this savage and brutal practice, while they expressed their wonder that we did not likewise eat our enemies. Your royal Majesty may rest assured on this point, that their numerous customs are all so barbarous that I can not describe them adequately here. Therefore, considering the many, many things I saw in my four voyages—things so entirely different from our customs and manners—I have prepared and com-

<sup>&</sup>lt;sup>1</sup> The Italian text gives iuca, cazabi, and ignami.

pleted a work which I have entitled "The Four Voyages." In this book I have collected the greater part of the things I saw, and have described them as clearly as my small ability would permit. I have not, however, published it as yet. In this work, each topic is given more careful and individual attention, and therefore in the present pamphlet I shall merely touch upon them, making only general statements. And so I return to complete the account of our first voyage, from which I have made a short digression.

In the beginning of our voyage we did not see anything of great value except a few traces of gold, and this only because they pointed out to us several proofs of its existence in the soil. I suppose we should have learned much more, had we been able to understand their language. In truth, this land is so happily situated that it could not be improved. We unanimously agreed, however, to leave it and to continue our voyage further. And so, keeping land always in sight, and tacking frequently, we visited many ports, in the meanwhile entering upon communications with many different tribes of those regions. After some days we made a certain harbor in which it pleased God to deliver us from a great danger.

As soon as we entered this harbor, we dis-

covered that their whole population, that is to say, the entire village, had houses built in the water, as at Venice. There were in all about twenty large houses, built in the shape of bells (as we have said above), and resting firmly upon strong wooden piles. In front of the doors of each house drawbridges had been erected, over which one could pass from one hut to another as if over a well-constructed road. As soon as the inhabitants of this settlement noticed us they were seized with great fear, and immediately raised the drawbridges to defend themselves against us, and hid themselves within their houses. While we were watching their actions with some degree of wonder, lo and behold about twelve of their boats (which are hollowed out of the trunk of a single tree) came over the water to meet us. The occupants of these boats looked at us and at our clothes with wonder, and rowed about us in every direction, but continued to examine us from a distance. We on our part were similarly observing them, making many signs of friendship to urge them to approach us without fear. But it was of no avail. Seeing their reluctance, we began to row in their direction. They did not await our arrival, but immediately fled to the shore, making signs to us that we should await their return, which (they signified) would be shortly. There-

upon they hurried to a nearby hill, returning thence accompanied by sixteen maidens. With these they embarked in the above-mentioned boats and straightway returned to us. Of the maidens, four were then placed in each one of our ships, a proceeding which, as your Majesty may well believe, astonished us not a little. Then they went back and forth among our ships with their canoes, and spoke to us in such kindly manner that we began to consider them our trusty friends. While all this was going on, behold a large crowd began to swim from their houses (already described) and to advance in our direction. Though they advanced further and further, and though they were now nearing our ships, we entertained not the slightest suspicion of their actions. At this point, however, we saw some old women standing at the doors of their houses, shouting wildly and filling the air with their cries, and tearing their hair in great distress. We now began to suspect that some great danger was threatening. Immediately the girls who had been placed on board our ships leaped into the sea. Those who were in the canoes pulled off a short distance, drew their bows and began to make a vigorous attack upon us. Moreover, those who had started from their houses and were swimming over the sea toward us, were, each one of them, carrying a lance under

water. This was sure proof of their treachery, and we began not only to defend ourselves with spirit, but also to inflict serious injuries upon them. In fact, we wrecked and sank many of the canoes, with great loss of life to their occupants,—a loss which became even greater because the natives abandoned their canoes entirely and swam to the shore. About twenty of them were killed and many more were wounded. Of ours only five were injured, all of whom were restored to health, with the help of God. We managed to capture two of the girls and three men. Later we visited the houses of the settlement, and upon entering found them occupied only by two old women and a sick man. We did not set fire to the houses for this reason, that we feared lest our consciences would prick us. We then returned to the ships with our five captives and put them in irons, except the girls. At night, however, both girls and one of the men very shrewdly effected their escape.

On the following day we agreed to leave that port and to sail on along the coast. After a run of about eighty leagues we came to another tribe entirely different from the former in language and customs. We anchored the fleet and approached the shore in our small boats. Here we saw a crowd of about 4,000 persons on the beach. As soon as they realized that we were

about to land, they no longer remained where they were, but fled to the woods and forests, abandoning on the shore everything which they had had with them. Leaping upon the land, we advanced along a road leading to the forest about as far as a crossbow shot. We soon came upon many tents which had been pitched there by that tribe for the fishing season. Within them, many fires had been built for cooking their meals, and animals and fishes of various kinds were being roasted. Among other things we saw that a certain animal was being roasted which looked very much like a serpent, except for the wings which were missing. It looked so strange and so terrible that we greatly wondered at its wild appearance. Proceeding onward through their tents, we found many similar serpents, whose feet were tied and whose mouths were muzzled so that they could not open them, as is done with dogs and other wild animals that they may not bite. Their whole appearance was so savage that we, supposing them to be poisonous, did not dare approach them. are like a young goat in size, and half as long again as an arm. Their feet are very large and heavy, and are armed with strong claws; their skin is varicolored; their mouth and face like those of a serpent. From the end of the nose to the tip of their tail they are covered (along

the back) with a kind of bristle, from which we decided that they were truly serpents. And yet the above-mentioned tribe eats them. That same tribe makes bread from the fishes which they catch in the sea, the process being as follows: First of all they place the fish in water and boil it for some time; then they pound it and crush it and make it into small cakes which they bake upon hot ashes and which they then eat. Upon tasting them we found them to be not at all bad. They have many other kinds of food, including different fruits and herbs, but it would take too long to describe them.

But to return to our story. Although the natives did not reappear from the woods to which they had fled, we did not take away any of their possessions, in order that we might increase their confidence in us. In fact, we left many small trifles in their tents, placing them where they would be seen, and at night returned to our ships. On the next day, when Titan began to rise above the horizon, we saw a countless multitude upon the shore. We immediately landed; and though the natives still appeared to be somewhat afraid of us, yet they mingled among us, and began to deal and to converse with us with complete security. They signified to us that they would be our friends, that the tents which we saw were not their real

houses, and that they had come to the shore to fish. Therefore they begged us to accompany them to their villages, assuring us that they wished to welcome us as friends. We were made to understand that the cause of the friendship which they had conceived for us was our arrest of those two prisoners, who turned out to be enemies of theirs. And so, seeing the persistence with which they asked us, twenty-three of us decided to go with them, fully armed and with the firm resolve to die valiantly if need be.

After remaining there for three days, we marched inland with them for three leagues and came to a village consisting of but nine habita-There we were received with such numerous and such barbarous ceremonies that my pen is too weak to describe them. For instance, we were welcomed with dances and with songs, with lamentations mingled with cries of joy and of happiness, with much feasting and banqueting. Here we rested for the night, and the natives most generously offered us their . After we had remained that night and half of the next day, a large and wondering crowd came to look at us, without hesitation and fear. Their elders now asked us to go with them to their other villages situated farther inland, to which we again agreed. It is not an easy task to recount the honors which they

showered upon us here. In short, we went about in their company for nine whole days, visiting very many of their settlements, with the result that (as we afterward learned), our companions whom we had left in the ships began to be very anxious about us and to entertain serious fears for our safety. And so, after having penetrated about eighteen leagues into the interior of the country, we decided to make our way back to the ships. On our return a great crowd of men and women met us and accompanied us all the way to the sea,—a fact which is of itself very remarkable. But there is more. Whenever it happened that one of our company would lag behind from weariness, the natives came to his assistance and carried him most zealously in those nets in which they sleep. In crossing the rivers, too (which in their country are very numerous and very large), they were so careful with the contrivances they employed that we never feared the slightest danger. Moreover, many of them, laden down with their gifts, which they carried in those same nets, accompanied us. The gifts consisted of feathers of very great value, of many bows and arrows, and of numberless parrots of different colors. Many others, also, were bringing their household goods and their animals. In fine, they all reckoned themselves fortunate if, in crossing a

stream, they could bear us on their shoulders or on their backs.

However, we hastened to the sea as quickly as possible. As we were about to embark in our boats, so great was the crowding of the natives in their attempt to accompany us still further and to embark with us and visit our ships, that our boats were almost swamped by the load. We took on board, however, as many as we could accommodate and brought them to our ships. In addition to those whom we had on board, so many of them accompanied us by swimming that we were somewhat troubled by their approach; for, about a thousand of them boarded our ships (naked and unarmed though they were), and examined with wonder our equipment and arrangements and the great size of the ships themselves. And then a laughable thing happened. We desired to shoot off some of our war engines and artillery, and therefore put a match to the guns. These went off with such a loud report that a large portion of the natives, upon hearing this new thunder, leaped into the water and swam away, like frogs sitting on the bank, which jump into the bottom of the marsh and hide the moment they are startled by a noise. In this way acted the natives. Those natives who had fled to another portion of the ships were so thoroughly fright-

ened that we repented and chid ourselves for what we had done. But we quickly reassured them, and did not permit them to remain any longer in ignorance, explaining that it was with these guns that we killed our enemies.

After entertaining them the whole day upon our ships, we warned them to depart because we intended to sail during the night; whereupon they took leave of us in a most friendly and kindly manner. We saw and learned very many customs of this tribe and region, but it is not my intention to dwell upon them here. Your Majesty will be in a position to learn later of all the more wonderful and noteworthy things I saw in each of my voyages; for I have collected them in one work written after the manner of a geographical treatise and entitled "The Four Voyages." In this work I give individual and detailed descriptions, but I have not yet offered it to the public because I must still revise it and verify my statements.

That land is very thickly populated, and everywhere filled with many different animals, very unlike those of our country. In common with us they have lions, bears, stags, pigs, goats, and fallow deer, which are, however, distinguished from ours by certain differences. They are entirely unacquainted with horses, mules, asses, dogs, and all kinds of small cattle (such as

sheep and the like), and cows and oxen. They have, however, many species of animals which it would be difficult to name, all of them wild and of no use to them in their domestic affairs. But why say more? The land is very rich in birds, which are so numerous and so large, and have plumes of such different kinds and colors, that to see and describe them fills us with wonder. The climate, moreover, is very temperate and the land fertile, full of immense forests and groves, which are always green, for the leaves never fall. The fruits are countless and entirely different from ours. The land itself is situated in the torrid zone, on the edge of the second climate, precisely on the parallel which marks the tropic of Cancer, where the Pole rises twenty-three degrees above the horizon. During this voyage many came to look at us, marveling at the whiteness of our skin. And when they asked us whence we came, we answered that we had descended from heaven to pay the earth a visit, a statement which was believed on all sides. We established in this land many baptismal fonts or baptisteries, in which they made us baptize countless numbers, calling us in their own tongue "charaibi,"—that is to say, "men of great wisdom." The country itself is called by them "Parias."

Later we left that harbor and land, sailing

along shore and keeping land always in view. We sailed for 870 leagues, making many tacks and treating and dealing with numerous tribes. In many places we obtained gold, but not in great quantities; for it sufficed us for the present to discover those lands and to know that there was gold therein. And since by that time we had already been thirteen months on our voyage, and since the tackle and rigging were very much the worse for wear and the men were reduced by fatigue, we unanimously agreed to repair our small boats (which were leaking at every point) and to return to Spain. Just as we had reached this conclusion, we neared and entered the finest harbor in the world. Here we again met a countless multitude, who received us in a very friendly manner. On the beach we built a new boat with material taken from the other ships and from barrels and casks, placed upon dry land our rigging and military engines, which were almost rotting away in the water, lightened our ships and drew them up on land. Then we repaired them and patched them, and gave them a thorough overhauling. During all these occupations the inhabitants of the country gave us no slight assistance. Indeed, they offered us provisions out of friendship and unasked, so that we consumed very little of our own supplies. This we considered a great boon,

for our supplies at this stage were rather too meager to enable us to reach Spain without stinting ourselves.

We remained in that port thirty-seven days, frequently visiting the villages in company with the natives and being treated with great respect by each and every one of them. When we at last expressed our intention to leave that harbor and to resume our voyage, the natives complained to us that there was a certain savage and hostile tribe, which, at a certain time of the year, came over the sea to their land, and either through treachery or through violence killed and devoured a great number of them. They added that others were led off as prisoners to the enemy's country and home, and that they could not defend themselves against these enemies, making us understand that that tribe inhabited an island about one hundred leagues out at sea. They related their story to us in such plaintive tones that we took pity on them and believed them, promising that we should exact punishment for the injuries inflicted upon them. Whereat they greatly rejoiced and of their own accord offered to accompany us. We refused for several reasons, agreeing to take seven with us on the following condition: that at the close of the expedition they should return to their country alone and in their own canoes,

for we did not by any means intend to take the trouble of bringing them back. To this condition they gladly assented, and so we took leave of the natives, who had become our dear friends, and departed.

We sailed about in our refitted ships for seven days, with the wind blowing between the northeast and east. At the end of this period we reached many islands, of which some were inhabited and others not. We thereupon approached one of them; and while endeavoring to anchor our ships we saw a great horde of people on the island, which the inhabitants call Ity. After examining them for some time, we manned the small boats with brave men and three guns, and rowed nearer the shore, which was filled with 400 men and very many women, all of whom (like the others) went about naked. The men were well built, and seemed very warlike and brave, for they were all equipped with their usual arms, namely, the bow and arrow and the lance. Very many of them, moreover, bore round shields or even square shields, with which they defended themselves so skillfully that they were not hindered thereby in shooting their arrows.

When we had come in our boats to within a bowshot of the land, they leaped into the sea and shot an infinite number of arrows at us,

endeavoring might and main to prevent our landing. Their bodies were all painted over with many colors, and were decorated with birds' feathers. The natives whom we had taken with us noticed this and informed us that whenever the men are so painted and adorned with plumes they are ready for battle. They were, however, so successful in preventing our landing that we were compelled to direct our stone-hurling machines against them. When they heard the report and noticed its power (for many of them had fallen dead), they fled to the shore. We then held a consultation, and forty-two of us agreed to land after them and valiantly to engage in battle with them. we did. We leaped to the shore fully armed; and the natives made such stout resistance that the battle raged ceaselessly for almost two hours with varying fortune. We gained a signal victory over them, but only a very few of the natives were killed, and not by us but by our cross-bowmen and gunners, which was due to the fact that they very shrewdly avoided our spears and swords. But at last we made a rush upon them with such vigor that we killed many with the points of our swords. When they saw this, and when very many had been killed and wounded, they turned in flight to the woods and forests, leaving us masters of the field. We did

not wish to pursue them any further that day because we were too fatigued and preferred to make our way back to our ships. And the joy of the seven who had come with us from the mainland was so great that they could scarcely restrain themselves.

Early the next day we saw a great horde of people approaching through the island, playing on horns and other instruments which they use in war, and again painted and wearing birds' feathers. It was a wonderful sight to see. We again discussed what their plans might be, and decided upon the following course of action: to gather our forces quickly if the natives offered us any hostility; to keep constant watch in turns and in the meantime to endeavor to make them our friends, but to treat them as enemies if they rejected our friendship; and finally to capture as many of them as we could and make and keep them as our slaves forever. And so we gathered upon the shore in hollow formation, armed to the teeth. They, however, did not oppose the slightest resistance to our landing, I suppose on account of their fear of our guns. Upon disembarking, fifty-seven strong, we advanced against them in four divisions (each man under his respective captain), and engaged in a long hand-to-hand combat with them.

After a long and severe struggle, during which we inflicted great loss upon them, we put the rest to flight and pursued them as far as one of their settlements. Here we made twenty-five prisoners, set fire to the village, and returned to the ships with our captives. The losses of the enemy were very many killed and wounded; on our side, however, only one man was killed, and twenty-two were wounded, all of whom have regained their health, with the help of God.

Our arrangements for the return to our fatherland were now complete. To the seven natives who had come with us from the mainland (five of whom had been wounded in the aforesaid battle), we gave seven prisoners, three men and four women. And they, embarking in a boat which they had seized on the island, returned home filled with great joy and with great admiration for our strength. We set sail for Spain, and at last entered the harbor of Cadiz with our two hundred and twenty-two prisoners, on the 25th day of October, in the year of Our Lord 1499, where we were received with great rejoicing, and where we sold all our prisoners.

And these are what I have deemed to be the more noteworthy incidents of my first voyage.

### THE SECOND VOYAGE

THE following pages contain an account of my second voyage and of the noteworthy incidents which befell me in the course of that voyage.

We set sail from the harbor of Cadiz, in the year of Our Lord 1489 (sic), on a May day As soon as we cleared the harbor, we shaped our course for the Cape Verde Islands; and passing in sight of the islands of the Grand Canary group, we sailed on until we reached the island called Fire Island. Here we took on supplies of fuel and of water, and resumed our voyage with a southwest wind. After nineteen days we reached a new land, which we took to be the mainland. It was situated opposite to that land of which mention has been made in our first voyage; and it is within the Torrid Zone, south of the equinoctial line, where the pole rises five degrees above the horizon beyond every climate. The land is 500 leagues to the southwest of the above-mentioned islands.

We discovered that in this country the day is of the same length as the night on the 27th of June, when the sun is on the Tropic of Cancer. Moreover, we found that the country is, in great measure, marshy and that it abounds in large rivers, which cause it to have very thick vegetation and very high and straight trees. In fact,

the growth of vegetation was such that we could not at the time decide whether or not the country was inhabited. We stopped our ships and anchored them, and then lowered some of our small boats in which we made for the land. We hunted long for a landing, going here and there and back and forth, but, as has already been said, found the land everywhere so covered with water that there was not a single spot that was not submerged. We saw, however, along the banks of those rivers many indications that the land was not only inhabited, but indeed very thickly populated. We could not disembark to examine such signs of life more closely, and therefore agreed to return to our ships, which we did. We weighed anchor and sailed along the coast with the wind blowing east and southeast, trying time and again, in a course of more than forty leagues, to penetrate into the island itself. But all to no purpose. For we found in that part of the ocean so strong a current flowing from southeast to northwest that the sea was quite unfit for navigation. When we discovered this difficulty, we held a council and determined to turn back and head our ships to the northwest. So we continued to sail along shore and finally reached a body of water having an outer harbor and a most beautiful island at the entrance.

We sailed across the outer harbor that we might enter the inner haven. In so doing, we noticed a horde of natives on the aforesaid island, about four leagues inland from the sea. We were greatly pleased and got our boats ready to land. While we were thus engaged, we noticed a canoe coming in from the open sea with many persons on board, which made us resolve to attack them and make them our prisoners. We therefore began to sail in their direction and to surround them, lest they might escape us. The natives in their turn bent to their paddles and, as the breeze continued to blow but moderately, we saw them raise their oars straight on high, as if to say that they would remain firm and offer us resistance. I suppose that they did this in order to rouse admiration in us. But when they became aware that we were approaching nearer and nearer, they dipped their paddles into the water and made for the land. Among our ships there was a very swift boat of about forty-five tons, which was so headed that she soon got to windward of the natives. When the moment for attacking them had come, they got ready themselves and their gear and rowed off. Since our ship now went beyond the canoe of the natives, these attempted to effect their escape. Having lowered some boats and filled them with brave men, thinking that we would catch them,

we soon bore down on them, but though we pursued them for two hours, had not our caravel which had passed them turned back on them they would have entirely escaped us. When they saw that they were hemmed in on all sides by our small boats and by the ship, all of them (about twenty in number) leaped into the water, albeit they were still about two leagues out at sea. We pursued them with our boats for that entire day, and yet we managed to capture only two of them, the rest reaching land in safety.

In the canoe which they had abandoned, there were four youths, who did not belong to the same tribe, but had been captured in another land. These youths had recently had their virile parts removed, a fact which caused us no little astonishment. When we had taken them on board our ships, they gave us to understand by signs that they had been carried off to be devoured, adding that this wild, cruel, and cannibal tribe were called "Cambali."

We then took the canoe in tow, and advanced with our ships to within half a league of the shore, where we halted and dropped our anchors. When we saw a very great throng of people roaming on the shore, we hastened to reach land in our small boats, taking with us the two men we had found in the canoe that we had attacked. The moment we set foot on dry land, they all

fled in great fright to the groves near by and hid in their recesses. We then gave one of the captives permission to leave us, loading him with very many gifts for the natives with whom we desired to be friends, among which were little bells and plates of metal and numerous mirrors. We instructed him, furthermore, to tell the natives who had fled not to entertain any fear on our account, because we were greatly desirous of being their friends. messenger departed and fulfilled his mission so well that the entire tribe, about four hundred in number, came to us from out of the forest, accompanied by many women. Though unarmed, they came to where we were stationed with our small boats, and we became so friendly that we restored to them the second of the two men whom we had captured, and likewise sent instructions to our companions, in whose possession it was, to return to the natives the canoe which we had run down. This canoe was hollowed out of the trunk of a single tree, and had been fashioned with the greatest care. It was twenty-six paces long and two ells (bracchia) wide. As soon as the natives had recovered possession of their canoe and had placed it in a secure spot along the river bank, they unexpectedly fled from us and would no longer have anything to do with us. By such an uncivilized

act, we knew them to be men of bad faith. Among them we saw a little gold, which they wore suspended from their ears.

We left that country, and after sailing about eighty leagues we found a safe anchorage for our ships, upon entering which we saw such numbers of natives that it was a wonderful sight. We immediately made friends with them and visited in their company many of their villages, where we were honorably and heartily welcomed. Indeed, we bought of them five hundred large pearls in return for one small bell, which we gave them for nothing.1 In that land they drink wine made from fruits and seeds, which is like that made from chickpeas, or like white or red beer. The better kind of wine, however, is made from the choicest fruits of the myrrh tree. We ate heartily of these fruits and of many others that were both pleasant to the taste and nourishing, for we had arrived at the proper season. This island greatly abounds in what they use for food and utensils, and the people themselves were well mannered and more peacefully inclined than any other tribe we met.

We spent seventeen days in this harbor very pleasantly, and each day a great number of

<sup>&#</sup>x27;So the Latin text, which seems to be in error. The Italian version having, "which they gave us for nothing."

people would come to us to marvel at our appearance, the whiteness of our skins, our clothes and weapons, and at the great size of our ships. Indeed, they even told us that one of the tribes hostile to them lived further to the west, and possessed an infinite number of pearls; and that those pearls which they themselves possessed had been taken from these enemies in the course of wars which they had waged against them. They gave us further information as to how the pearls were fished and how they grew, all of which we found to be true, as your Majesty will learn later on.

We left that harbor and sailed along the coast, on which we always saw many people. Continuing on our course, we entered a harbor for the purpose of repairing one of our ships. Here again we saw many natives, whom we could neither force nor coax to communicate with us in any way. For, if we made any attempt to land, they resisted most desperately; and if they could not withstand our attack, they fled to the woods, never waiting for us to approach any nearer. Realizing their utter savageness, we departed. While we were thus sailing on, we saw an island fifteen leagues out at sea and resolved to visit it and learn whether or not it was inhabited. Upon reaching it we found it to be inhabited by a race of most

animallike simplicity, and at the same time very obliging and kind, whose rites and customs are the following:

ON THE RITES AND CUSTOMS OF THIS TRIBE.

They were animallike in their appearance and actions, and had their mouths full of a certain green herb which they continually chewed upon as animals chew their cud, with the result that they could not speak. Moreover, each one of them had suspended from his neck two small dried gourds, one of which contained a supply of that herb which they were chewing, while the other contained a kind of white flour resembling plaster or white lime. Every now and then they would thrust into the gourd filled with flour a small stick whose end they had moistened in their mouths. By so doing they managed to gather some of the flour and put it into their mouths, powdering with this flour that herb which they were already chewing. They repeated this process at short intervals; and though we wondered greatly, we could not see any reason for their so doing, nor could we understand their secret.

This tribe came to us and treated us as familiarly as if they had frequently had dealings with us and as if they had long been friendly with us. We strolled with them along the shore, talking

the while, and expressed our desire to drink some fresh water. To which they answered, by signs, that there was none in their country, offering us in its stead some herb and flour such as they were chewing. We now understood that since their country lacked water, they chewed that herb and flour to quench their thirst. And so it happened that, though we walked along that shore in their company for a day and a half, we never came across any spring water, and learned that such water as they did drink was the dew which gathered upon certain leaves having the shape of a donkey's ears. During the night these leaves were filled with dew, of which the people then drank, and it is very good. But in many places these leaves are not found.

This tribe is entirely unacquainted with the solid products of the earth, and live chiefly on the fish which they catch in the sea. Indeed there are many expert fishermen among them, and their waters abound in fish, of which they offered us many turtles and many other most excellent varieties. The women of the tribe, however, do not chew the herb as the men do; in its place, each one of them carries a single gourd filled with water, of which they partake from time to time. They do not have villages composed of individual houses, nor do they have even small huts. Their only shelter is made of

large leaves, which serve indeed to protect them against the heat of the sun, but are not a sufficient protection against the rains, from which it may be deduced that there is little rain in that country. When they come down to the sea to fish, each one brings with him a leaf so large that, by fixing one end of it in the ground and then turning the leaf to follow the sun, he procures underneath its shade ample relief from the great heat. In this island, finally, there are countless species of animals, all of which drink the water of the marshes.

Seeing, however, that there was nothing to be gained on that island, we left it and found another one. We landed and started to search for some fresh water to drink, believing the island to be uninhabited because we had seen no one as we approached it. But as we were walking along the shore, we came upon some very large footprints, from which we judged that, if the other members of the body were in proportion to the size of the feet, the inhabitants must be very large indeed. Continuing our walk along the sands, we discovered a road leading inland, along which nine of us decided to go to explore the island, because it did not seem to be very large nor very thickly populated. After advancing along that road about a league, we saw five houses situated in a valley

and apparently inhabited. Entering them we found five women, two of them old and three young; and all of them were of such large and noble stature that we were greatly astonished. As soon as they laid eyes upon us they were so overcome with surprise that they had no strength left for flight. Thereupon the old woman addressed us soothingly in their own tongue, and, gathering in one hut, offered us great quantities of food. All of them, in truth, were taller than a very tall man; indeed, they were as tall as Francesco degli Albizi, and better knit and better proportioned than we are. When we had observed all this, we agreed to seize the young girls by force and to bring them to Castile as objects of wonder.

While we were still deliberating, behold about thirty-six men began to file through the door of the house, men much larger than the women and so magnificently built that it was a joy to see them. These men caused us such great uneasiness that we considered it safer to return to our ships than to remain in their company. For they were armed with immense bows and arrows, and with stakes and staffs the size of long poles. As soon as they had all entered, they began to talk among themselves as if plotting to take us prisoners, upon seeing which we, too, held a consultation. Some were

of the opinion that we should fall upon them just where they were, within the hut itself; others disapproved of this entirely, and suggested that the attack be made out of doors and in the open; and still others declared that we should not force an engagement until we learned what the natives decided to do. During the discussion of these plans we left the hut disguising our feelings and our intentions, and began to make our way back to the ships. The natives followed at a stone's throw, always talking among themselves. I believe, however, that their fear was no less than ours; for, although they kept us in sight, they remained at a distance, not advancing a single step unless we did likewise. When, however, we had reached the ships and had boarded them in good order, the natives immediately leaped into the sea and shot very many of their arrows after us. But now we had not the slightest fear of them. Indeed, rather to frighten than to kill them, we shot two of our guns at them; and upon hearing the report they hastily fled to a hill nearby. Thus it was that we escaped from them and departed. These natives, like the others, also go about naked; and we called the island the Island of the Giants, on account of the great size of its inhabitants.

We continued our voyage further, sailing a

little further off shore than before and being compelled to engage with the enemy every now and then because they did not want us to take anything out of their country. By this time thoughts of revisiting Castile began to enter our minds, particularly for this reason, that we had now been almost a year at sea and that we had very small quantities of provisions and other necessaries left. Even what still remained was all spoiled and damaged by the extreme heat which we had suffered. For, ever since our departure from the Cape Verde Islands, we had continually sailed in the Torrid Zone, and had twice crossed the equator, as we have said above.

While we were in this state of mind, it pleased the Holy Spirit to relieve us of our labors. For, as we were searching for a suitable haven wherein to repair our ships, we reached a tribe which received us with the greatest demonstrations of friendship. We learned, moreover, that they were the possessors of countless large Oriental pearls. We therefore remained among them forty-seven days, and bought 119 marcs of pearls at a price which, according to our estimation, was not greater than forty ducats, for we gave them in payment little bells, mirrors, bits of crystals, and very thin plates of electrum. Indeed, each one would give all the pearls he had for one little bell. We also learned from

them how and where the pearls were fished, and they gave us several of the shells in which they grow. We bought some shells in addition, finding as many as 130 pearls in some, and in others not quite so many. Your Majesty must know that unless the pearls grow to full maturity and of their own accord fall from the shells in which they are born, they cannot be quite perfect. Otherwise, as I have myself found by experience time and again, they soon dry up and leave no trace. When, however, they have grown to full maturity, they drop from the fleshy part into the shell, except the part by which it hung attached to the flesh; and these are the best pearls.

At the end of the forty-seven days, then, we took leave of that tribe with which we had become such good friends, and set sail for home on account of our lack of provisions. We reached the island of Antiglia, which Christopher Columbus had discovered a few years before. Here we remained two months and two days in straightening out our affairs and repairing our ships. During this time we endured many annoyances from the Christians settled on that island, all of which I shall here pass over in silence that I may not be too prolix. We left that island on the 27th of July, and after a voyage of a month and a half we at last entered

the harbor of Cadiz on the 8th of September, where we were received with great honor.

And so ended my second voyage, according to the will of God.

#### THE THIRD VOYAGE

I HAD taken up my abode in Seville, desiring to rest myself a little, to recover from the toils and hardships endured in the voyages described above, intending finally to revisit the land of pearls. But Fortune was by no means done with me. For some reason unknown to me she caused his most serene Lordship, Manuel, King of Portugal, to send me a special messenger bearing a letter which urgently begged me to go to Lisbon as soon as possible, because he had some important facts to communicate to me. I did not even consider the proposition, but immediately sent word by the same messenger that I was not feeling very well and in fact was ill at that moment; adding that, if I should regain my health and if it should still please His Royal Majesty to enlist my services, I should gladly undertake whatever he wished. Whereupon the King, who saw that he could not bring me to him just then, sent to me a second time, commissioning Giuliano Bartolomeo Giocondo',

¹ Probably a relative of Fra Giovanni, a Dominican, later Franciscan friar, architect, and archæologist, associated with Raphael and Sangallo in the erection of St. Peter's, builder of a bridge across the Seine and collector of more than 2,000 ancient inscriptions (1430?-1515?).

then in Lisbon, to leave no stone unturned to bring me back to the King. Upon the arrival of the said Giuliano I was moved by his entreaties to return with him to the King-a decision which was disapproved of by all those who knew me. For I was leaving Castile, where no small degree of honor had been shown me and where the King himself held me in high esteem. What was even worse was that I departed without taking leave of my host. I soon presented myself before King Manuel, who seemed to rejoice greatly at my arrival. He then repeatedly asked me to set out with three ships which had been got ready to start in search of new lands. And so, inasmuch as the entreaties of Kings are as commands, I yielded to his wishes.

#### THE START OF THE THIRD VOYAGE

We set sail in three ships from the harbor of Lisbon, on the 10th of May, 1501, directing our course toward the islands of the Grand Canary. We sailed along in sight of these islands without stopping, and continued our westward voyage along the coast of Africa. We delayed three days in these waters, catching a great number of species of fish called *Parghi*. Proceeding thence we reached that region of Ethiopia which is called Besilicca', situated in

<sup>&</sup>lt;sup>1</sup>Now Goree.

the Torrid Zone, within the first climate, and at a spot where the North Pole rises fourteen degrees above the horizon. We remained here eleven days to take on supplies of wood and of water, because it was my intention to sail southward through the Atlantic Ocean. We left that harbor of Ethiopia and sailed to the southwest for sixty-seven days, when we reached an island 700 leagues to the southwest of the above-mentioned harbor. During these days we encountered worse weather than any human being had ever before experienced at sea. There were high winds and violent rainstorms which caused us countless hardships. The reason for such inclement weather was that our ships kept sailing along the equinoctial line, where it is winter in the month of June and the days are as long as the nights, and where our own shadows pointed always to the south.

At last it pleased God to show us new land on the 17th of August. We anchored one league and a half out at sea, and then, embarking in some small boats, we set out to see whether or not the land was inhabited. We found that it was thickly inhabited by men who were worse than animals, as Your Royal Majesty will learn forthwith. Upon landing we did not see any of the natives, although from many signs which we noticed we concluded that the country

must have many inhabitants. We took possession of the coast in the name of the most serene King of Castile, and found it to be a pleasant and fruitful and lovely land. It is five degrees south of the Equator. The same day we returned to our ships; and since we were suffering from the lack of fuel and water, we agreed to land again the following day and provide ourselves with what was necessary. Upon landing we saw on the topmost ridge of a hill many people who did not venture to descend. They were all naked and similar in both appearance and color to those we had met in the former voyages. Though we did our best to make them come down to us and speak with us, we could not inspire them with sufficient confidence. Seeing their obstinacy and waywardness, we returned to our ships at night, leaving on the shore (as they looked on) several small bells and mirrors and other such trifles.

When they saw that we were far out at sea, they came down from the mountain to take the things we had left them, and showed great wonder thereat. On that day we took on a supply of water only. Early in the morning of the next day, as we looked out from our ships, we saw a larger number of natives than before, building here and there along the shore fires which made a great deal of smoke. Supposing

that they were thus inviting us, we rowed to the land. We now saw that a great horde of natives had collected, who, however, kept far away from us, making many signs that we should go with them into the interior. Wherefore two of our Christians declared themselves ready to risk their lives in this undertaking and to visit the natives in order to see for themselves what kind of people they were and whether they possessed any riches or aromatic spices. They begged the commander of the fleet so earnestly that he gave his consent to their departure. The two then prepared themselves for the expedition, taking along many trifles, for barter with the natives, and left us, with the understanding that they should make sure to return after five days at the most, as we should wait for them no longer.

They accordingly began their journey inland, and we returned to our ships, where we waited for eight whole days. On almost each of these days a new crowd would come to the shore, but never did they show a desire to enter into conversation with us. On the seventh day, while we again were making our way to the shore, we discovered that the natives had brought all their wives with them. As soon as we landed they sent many of their women to talk with us. But even the women did not trust us sufficiently. While we were waiting for them to approach,

we decided to send to them one of our young men who was very strong and agile; and then, that the women might be the less fearful, the rest of us embarked in our small boats. The young man advanced and mingled among the women; they all stood around him, and touched and stroked him, wondering greatly at him. At this point a woman came down from the hill carrying a big club. When she reached the place where the young man was standing, she struck him such a heavy blow from behind that he immediately fell to the ground dead. The rest of the women at once seized him and dragged him by the feet up the mountain, whereupon the men who were on the mountain ran down to the shore armed with bows and arrows and began to shoot at us. Our men, unable to escape quickly because the boats scraped the bottom as they rowed, were seized with such terror that no one had any thought at the moment of taking up his arms. The natives had thus an opportunity of shooting very many arrows at us. Then we shot four of our guns at them; and although no one was hit, still, the moment they heard the thunderous report, they all fled back to the mountain. There the women, who had killed the youth before our eyes, were now cutting him in pieces, showing us the pieces, roasting them at a large

fire which they had made, and eating them. The men, too, made us similar signs, from which we gathered that they had killed our two other Christians in the same manner and had likewise eaten them. And in this respect at least we felt sure that they were speaking the truth.

We were thoroughly maddened by this taunting and by seeing with our own eyes the inhuman way in which they had treated our dead. More than forty of us, therefore, determined to rush to the land and avenge such an inhuman deed and such bestial cruelty. But the commander of our ship would not give his consent; and so, being compelled to endure passively so serious and great an insult, we departed with heavy hearts and with a feeling of great shame, due to the refusal of our captain.

Leaving that land we began to sail between the East and South because the coast line ran in that direction. We made many turns and landings, in the course of which we did not see any tribe which would have any intercourse with us or approach us. We sailed at last so far that we discovered a new land stretching out toward the southwest. Here we rounded a cape (to which we gave the name St. Vincent) and continued our voyage in a southwesterly direction. This Cape St. Vincent is 150 leagues to the

southeast of the country where our Christians perished, and eight degrees south of the Equator. As we were sailing along in this manner, one day we noticed on the shore a great number of natives gazing in wonder at us and at the great size of our ships. We anchored in a safe place and then, embarking in our small boats, we reached land. We found the people much kinder than the others; for our toilsome efforts to make them our friends were at last crowned with success. We remained five days among them trading and otherwise dealing with them, and discovered large hollow reed-stalks, most of them still green, and several of them dry on the tops of the trees. We decided to take along with us two of this tribe that they might teach us their tongue; and, indeed, three of them volunteered to return to Portugal with us.

But, since it wearies me to describe all things in detail, may it suffice your Majesty to know that we left that harbor, sailing in a south-westerly direction, keeping always within sight of land, entering many harbors, making frequent landings, and communicating with many tribes. In fact, we sailed so far to the south that we went beyond the Tropic of Capricorn. When we had gone so far south that the South Pole rose thirty-two degrees above the horizon, we

lost sight of the Lesser Bear, and the Great Bear itself appeared so low as to be scarcely visible above the horizon. We were then compelled to guide ourselves by the stars of the South Pole, which are far more numerous and much larger and more brilliant than the stars of our Pole. I therefore made a drawing of very many of them, especially of those of the first magnitude, together with the declinations of their orbits around the South Pole, adding also the diameters and semi-diameters of the stars themselves—all of which can be readily seen in my "Four Voyages." In the course of the voyage from Cape St. Augustine, we sailed 700 leagues-100 toward the west and 600 toward the southwest. Should any one desire to describe all that we saw in the course of that voyage, paper would not suffice him. We did not, however, discover anything of great importance with the exception of an infinite number of cassia trees and of very many others which put forth a peculiar kind of leaf. We saw, in addition, very many other wonderful things which it would be tedious to enumerate.

We had now been on our voyage for almost ten months; and, seeing that we discovered no precious metals, we decided to depart thence and to roam over another portion of the sea. As soon as we had come to this conclusion, the

word went to each one of our ships that whatever I should think necessary to command in conducting this voyage should be fulfilled to the letter. I therefore immediately gave a general order that all should provide themselves with fuel and water for six months, for the different captains had informed me that their ships could remain at sea only that much longer.

As soon as my orders had been obeyed, we left that coast and began our voyage to the south on the 13th of February, in other words, when the sun was approaching the equinoctial line and returning to this Northern Hemisphere of ours. We sailed so far that the South Pole rose fifty-two degrees above the horizon, and we could no longer see the stars of the Great or the Lesser Bear. For we were then (the 3rd of April) 500 leagues distant from that harbor from which we had begun our southward voyage. On this day so violent a storm arose that we were forced to gather in every stitch of canvas and to run on with bare masts, the southwest wind blowing fiercely and the sea rolling in great billows, in the midst of a furious tempest. The gale was so terrible that all were alarmed in no slight degree. The nights, too, were very long. For on the 7th of April, when the sun was near the end of Aries, we found that the night was fifteen hours long. Indeed, as

your Majesty is very well aware, it was the beginning of winter in that latitude. In the midst of this tempest, however, on the 2nd of April, we sighted land, and sailed along shore for nearly twenty leagues. But we found it entirely uninhabited and wild, a land which had neither harbors nor inhabitants. I suppose it was for the reason that it was so cold there that no one could endure such a rigid climate. Furthermore, we found ourselves in such great danger and in the midst of so violent a storm that the different ships could scarcely sight one another. Wherefore the commander of the fleet and I decided that we should signal to all our shipmates to leave that coast, sail out to sea, and make for Portugal.

This plan proved to be a good and necessary one; for, had we remained there one single night longer, we should all have been lost. The day after we left, so great a storm arose that we feared we should be entirely submerged. For this reason we then made many vows to go on pilgrimages and performed other ceremonies, as is customary with sailors. The storm raged round us for five days, during which we could never raise our sails. During the same time we went 250 leagues out to sea, always getting nearer and nearer the equinoctial line, where both sea and sky became more moderate. And

here it pleased God on high to deliver us from the above-mentioned dangers. Our course was shaped to the north and northeast, because we desired to make the coast of Ethiopia, from which we were then distant 1,300 leagues, sailing through the Atlantic Ocean. By the grace of God we reached that country on the 10th of May. We rested there for fifteen days upon a stretch of coast facing the south and called Sierra Leone. Then we took our course toward the Azores, which are 750 leagues from Sierra Leone. We reached them about the end of July and again rested for fifteen days. We then set sail for Lisbon, from which we were 300 leagues to the west. And at last, in the year 1502, we again entered the port of Lisbon, in good health as God willed, with only two ships. The third ship we had burned at Sierra Leone, because she was no longer seaworthy.

In this third voyage, we remained at sea for nearly sixteen months, during eleven of which we sailed without being able to see the North Star nor the stars of the Great and the Lesser Bear. At that time we steered by the star of the South Pole.

What I have related above I have deemed the most noteworthy events of my third voyage.

#### THE FOURTH VOYAGE

I MUST still relate what I saw in my third (sic) voyage. But, in truth, since I have already been tired out by the length of the preceding narratives, and since this voyage did not at all end as I had hoped, on account of an accident that befell us in the Atlantic Ocean, I may be permitted (I trust), to be somewhat brief.

We left Lisbon in six ships with the intention of exploring an island situated toward the horizon and known as Melcha. This island is famous for its wealth, because it is a stopping place for all ships coming from the Gangetic and Indian Seas, precisely as Cadiz is the port for all vessels going from east to west, or in the opposite direction, as is the case with those ships which sail hence for Calicut. This island of Melcha is further to the west than Calicut and more to the south, which we knew from the following fact: that it is situated within sight of the thirty-third degree of the Antarctic Pole.

And so, on the 10th of May, 1503, we set sail from Lisbon (as I have said above), and made for the Cape Verde Islands, where we took on some needed provisions and many other necessary stores. We remained there twelve days, and then set sail with a south wind, because the commander of the fleet, who was

haughty and headstrong, issued orders that we should make for Sierra Leone, on the southern coast of Ethiopia. There was no necessity for this, and all of us were unanimously opposed to such a course; but he insisted upon it merely to impress upon us that he had been placed in command of us and the six ships. We made good speed, and just as we were at last coming within sight of our destination, so great and violent a tempest arose, and so heavy a gale began to rage, and Fortune became so unkind, that for four days we could not land in spite of the fact that we could see the coast during the whole of that time. Finally we were obliged to give up our attempts and to continue in what should have been our course from the beginning.

We therefore resumed our voyage with the Suduesius wind blowing (a wind which points between the south and the southwest), and sailed through those difficult seas for 300 leagues. In consequence we went across the Equator by almost three degrees, where land was seen by us twelve leagues off. We were greatly astonished at the sight. It was an island situated in the middle of the sea, very high and remarkable in appearance. It was no larger than two leagues in length by one in width. No man had ever been or lived on that island, and yet it

was to us a most unfortunate island. Upon it the commander of our fleet lost his ship, all owing to his own obstinate mind and will. His ship struck upon a rock, sprung leaks, and sank during the night of St. Lawrence, the 10th of August. With the exception of the crew nothing was saved. The ship was of 300 tons, and the strength of our whole fleet lay in her.

While we were all exerting ourselves to see if we could not, perhaps, float her again, the above-mentioned commander ordered me (among other things) to go in a rowboat to the island in search of a good harbor where we might all draw up our ships in safety. That same commander, however, did not wish me to go with my own ship, because it was manned by nine sailors and was then busily engaged in assisting the endangered ship. He insisted that I go and find such a harbor, where he would restore my ship to me in person. Upon receiving these orders. I went to the island as he desired, taking with me about half the number of my sailors. The island was four leagues away, and hastening thither I discovered a very fine harbor where we might safely anchor our entire fleet. I had now discovered the harbor, and there I spent eight days waiting for the said commander and the rest of our company. I was greatly dis-

turbed when they did not appear, and those who were with me became so alarmed that they could not be appeased in any way.

While we were in this state of anxiety, on the eighth day we saw a ship coming in over the sea. We at once set out to meet them in order that they might see us, feeling confident and at the same time hoping that they would take us with them to some better harbor. When we had gotten near and had exchanged greetings, those on board informed us that the commander's ship had been lost at sea, the crew alone being saved. Your Majesty can readily imagine the great anxiety which seized me at this report, when I realized that I was 1,000 leagues distant from Lisbon (to which I must needs return) in remote and far-off waters. Nevertheless, we resigned ourselves to the fate that had come upon us and determined to go on. First of all we returned to the island, where we gathered supplies of wood and water for the ship. The island, indeed, was quite uninhabited and most inhospitable; but it had a great deal of spring water, countless trees, and numberless land and sea birds, which were so tame that they permitted us to take them in our hands. We, therefore, took so many of them that we entirely filled one of the rowboats. The only other animals we discovered on that

island were very large mice, lizards with forked tails, and several serpents.

When we had got our provisions on board, we set sail toward the south and southwest; for we had received orders from the King, that, unless some great danger made it impossible, we should follow in the path of our former voyage. Setting out, therefore, in this direction, we at last found a harbor which we called the Bay of All Saints. Indeed, God had granted us such favorable weather that in less than seventeen days we reached this port, which is 300 leagues distant from the above-mentioned island. In the harbor we found neither the commander-in-chief nor any one else of our company, though we waited for them for two months and four days. At the end of this period, seeing that no one arrived there, my companions and I decided to sail further along the coast. After sailing for 260 leagues, we entered a harbor where we determined to build an outpost. Having done so, we left behind in this fort the twenty-four Christians who had been the crew of the luckless ship of our commander-in-chief. We remained in that harbor five months, occupied in constructing the said fort and in loading our ships with brazil-wood. We tarried thus long because our sailors were few in number and because, owing to the lack of many necessary

parts, our ships could not proceed further. But when all was done, we agreed to return to Portugal, to do which would require a wind between north and northeast.

We left in the fort the twenty-four Christians, giving them twelve guns and many more arms, and supplying them with provisions to last them six months. During our stay we had made friends with the tribes of that country, of which we have here made very little mention, notwithstanding that we saw great numbers of them and had frequent dealings with them. Indeed, we went about forty leagues into the interior in company with thirty of them. I saw on this expedition very many things which I now pass over in silence, reserving them for my book entitled "The Four Voyages." That country is eight degrees south of the equator and thirtyfive degrees west of the meridian of Lisbon, according to our instruments.

We set sail hence with the Nornordensius wind (which is between the north and the northeast) shaping our course for the city of Lisbon. At last, praise be to God, after many hardships and many dangers we entered this harbor of Lisbon in less than seventy-seven days, on the 28th of June, 1504. Here we were received with great honor and with far greater festivities than one would think possible. The

reason was that the entire city thought that we had been lost at sea, as was the case with all the rest of our fleet, who had perished owing to the foolish haughtiness of our commander-inchief. Behold the manner in which God, the just Judge of all, rewards pride!

I am now living at Lisbon, not knowing what next your most serene Majesty will plan for me to do. As for myself, I greatly desire from now on to rest from my many hardships, in the meantime earnestly commending to your Majesty the bearer of the present letter.

AMERIGO VESPUCCI,

in Lisbon.

Greetings from Walter Lud, Nicholas Lud, and Martin Ilacomilus

This tome has printed and hereafter oft Will others print, if Christ our helper be



Finished April 25 MDCVII

The town, St. Deodatus, named for thee And in the Vosgian Mountains reared aloft







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